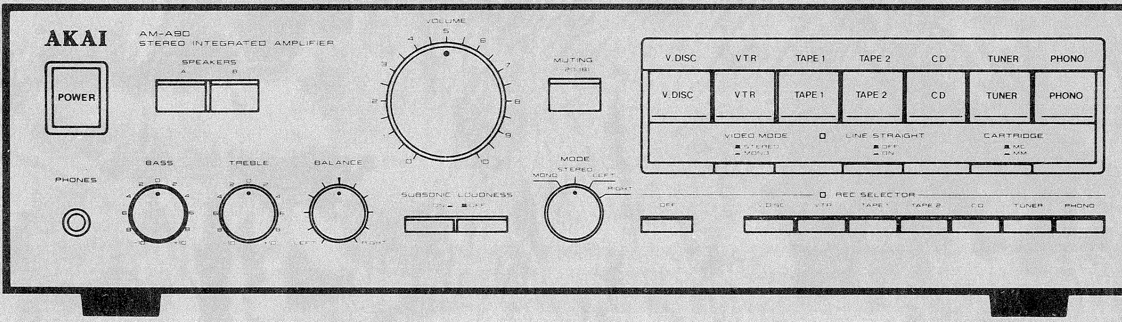
AKAI SERVICE MANUAL


AKAI
AM-A90
STEREO INTEGRATED AMPLIFIER
POWER
SPEAKERS
A
B
VOLUME
MUTING
V.DISC
VTR
TAPE 1
TAPE 2
CD
TUNER
PHONO
VIDEO MODE
LINE STRAIGHT
CARTRIDGE
PHONES
BASS
TREBLE
BALANCE
SUBSONIC
LOUDNESS
MODE
STEREO
MONO
LEFT
RIGHT
REC SELECTOR
OFF

STEREO INTEGRATED AMPLIFIER

MODEL AM-A90

ABBREVIATIONS FOR SERVICE MANUAL

MODEL AM-A90

ABBREVIATIONS	EXPLANATION
AC	Alternating Current
AMP	AMPlifier
CD	Compact Disc
DC	Direct Current
GND	GrouND
MC	Moving Coil
MM	Moving Magnet
PCB	Printed Circuit Board
REC	RECord
SW	SWitch
V.DISC	Video DISC
VR	Variable Resistance
VTR	Video Tape Recorder

STEREO INTEGRATED AMPLIFIER

MODEL AM-A90

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SECTION 2 PARTS LIST 11

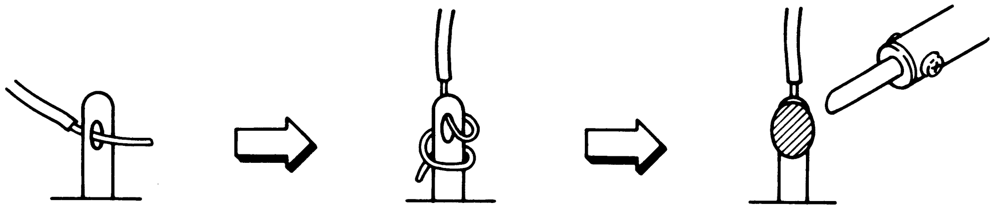
SAFETY INSTRUCTIONS

SAFETY CHECK AFTER SERVICING

Confirm the specified insulation resistance between power cord plug prongs and externally exposed parts of the set is greater than 10 Mohms, but for equipment with external antenna terminals (tuner, receiver, etc.) and is intended for $\boxed{C}$ or $\boxed{A}$, specified insulation resistance should be more than 2.2 Mohms (ground terminals, microphone jacks, headphone jacks. line-in-out jacks etc.)

PRECAUTIONS DURING SERVICING

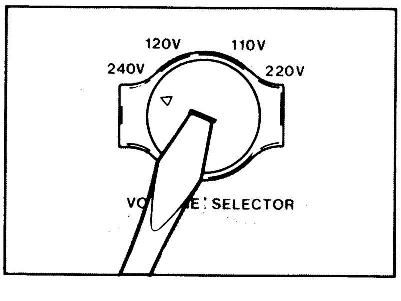
1. Parts identified by the ⚠ symbol parts are critical for safety.
   Replace only with parts number specified.
2. In addition to safety, other parts and assemblies are specified for conformance with such regulations as those applying to spurious radiation. These must also be replaced only with specified replacements.
   Examples: RF .converters, tuner units, antenna selector switches, RF cables, noise blocking capacitors, noise blocking filters, etc.
3. Use specified internal wiring. Note especially:
   1) Wires covered with PVC tubing
   2) Double insulated wires
   3) High voltage leads
4. Use specified insulating materials for hazardous live parts. Note especially:
   1) Insulation Tape
   2) PVC tubing
   3) Spacers (Insulating Barriers)
   4) Insulation sheets for transistors
   5) Plastic screws for fixing microswitch (especially in turntable)
5. When replacing AC primary side components (transformers, power cords, noise blocking capacitors, etc.), wrap ends of wires securely about the terminals before soldering.



6. Observe that wires do not contact heat producing parts (heatsinks, oxide metal film resistors, fusible resistors, etc.).
7. Check that replaced wires do not contact sharp edged or pointed parts.
8. Also check areas surrounding repaired locations.
9. Use care that foreign objects (screws, solder droplets, etc.) do not remain inside the set.

VOLTAGE CONVERSION

Models for Canada, USA, Europe, UK and Australia are not equipped with this facility. Each machine is preset at the factory according to destination, but some machines can be set to 110V, 120V, 220V, or 240V as required.
If your machine's can be converted:
Before connecting the power cord, turn the VOLTAGE SELECTOR located on the rear panel with a screwdriver until the correct voltage is indicated.



SECTION 1

SERVICE MANUAL

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  2. IDLING CURRENT ADJUSTMENT 8
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For basic adjustments, measuring methods, and operating principles, refer to GENERAL TECHNICAL MANUAL.

I. SPECIFICATIONS

POWER AMPLIFIER SECTION

RATED POWER OUTPUT	8 ohms 4 ohms
20Hz to 20kHz	130W/0.5 % 180W/0.7%
POWER OUTPUT (by FTC) 20Hz to 20kHz	130W/0.5 % 180W/0.7%
DIN 1kHz	140W/0.7%
POWER BANDWIDTH (IHF –3dB, 8 ohms)	10Hz to 80kHz (1.0%)
S/N (IHF-A)	
PHONO (MM)	86dB
PHONO (MC)	67dB
CD/AUX	100dB
RESIDUAL NOISE (8 ohms)	0.2mV
CHALLEL SEPARATION (IHF, 1kHz)	60dB
DAMPING FACTOR (1kHz, 8 ohms)	30
REQUIRED SPEAKER IMPEDANCE	
FOR USA, CANADA and EUROPE (EXCEPT UK and FRG)	A or B: 6 to 16 ohms A and B: 12 to 16 ohms
FOR UK, FRG, AUSTRALIA and OTHER COUNTRIES	A or B: 4 to 16 ohms A and B: 8 to 16 ohms

PRE AMPLIFIER SECTION

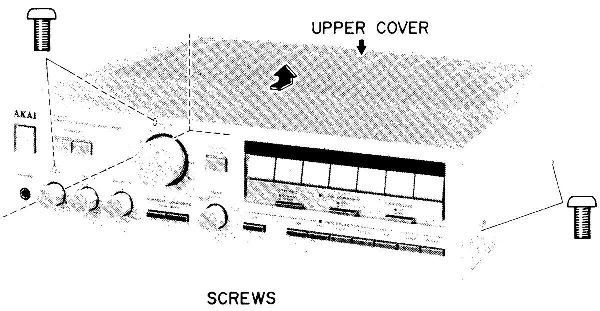
VIDEO SECTION	
INPUT SENSITIVITY/IMPEDANCE	
VTR	1Vp-p/75 ohms
V. DISC	1Vp-p/75 ohms
OUTPUT LEVEL/IMPEDANCE	1Vp-p/75 ohms
AUDIO SECTION	
INPUT SENSITIVITY/IMPEDANCE	
PHONO (MC)	0.2mV/100 ohms
PHONO (MM)	2.0mV/47k ohms
CD/AUX	150mV/47k ohms
TUNER	150mV/47k ohms
TAPE	150mV/47k ohms
VTR (AUDIO)	150mV/47k ohms
V. DISC (AUDIO)	150mV/47k ohms
OUTPUT LEVEL/IMPEDANCE	
TAPE REC	150mV/1k ohms
FREQUENCY RESPONSE	
PHONO (RIAA DEVIATION)	±0.2dB
TUNER, CD/AUX, TAPE	5Hz to 100kHz (–3dB)
TONE CONTROL	
BASS	±8dB
TREBLE	±8dB
SUBSONIC FILTER	–3dB (at 18Hz)
PHONO MAX. INPUT LEVEL	
MC	25mV
MM	250mV
POWER REQUIREMENTS	120V, 60Hz for USA & Canada 220V, 50Hz for Europe except UK 240V, 50Hz for UK & Australia 110V/120V/220V/240V, 50Hz/60Hz convertible for other countries
DIMENSIONS	440(W) x120(H) x410(D)mm (17.3 x 4.7 x 16.1 inches)
WEIGHT	12.5kg (27.6 lbs)

* For improvement purposes, specifications and design are subject to change without notice.

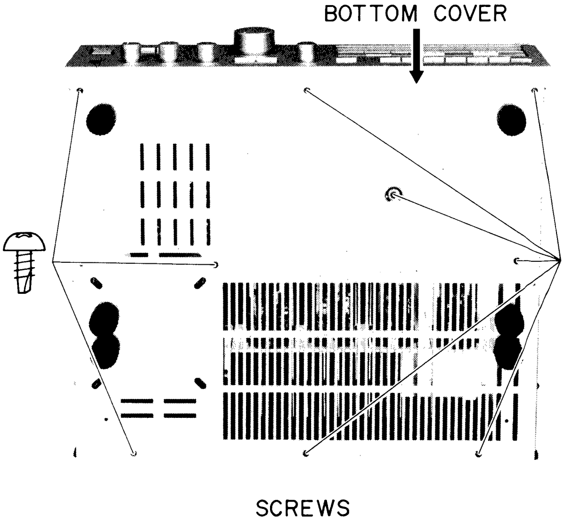
II. DISMANTLING OF UNIT

In case of trouble, etc. necessitating dismantling, please dismantle in the order shown in the photographs. Reassemble in reverse order.

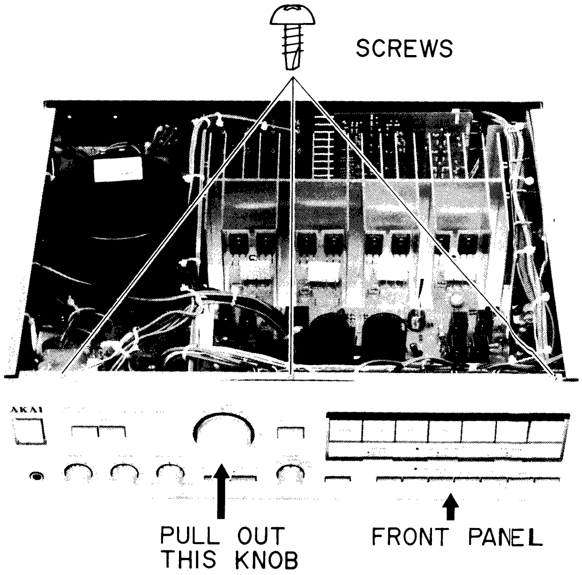
1


UPPER COVER
AKAI
SCREWS

2


BOTTOM COVER
SCREWS

3


SCREWS
AKAI
PULL OUT THIS KNOB
FRONT PANEL

III. CONTROLS

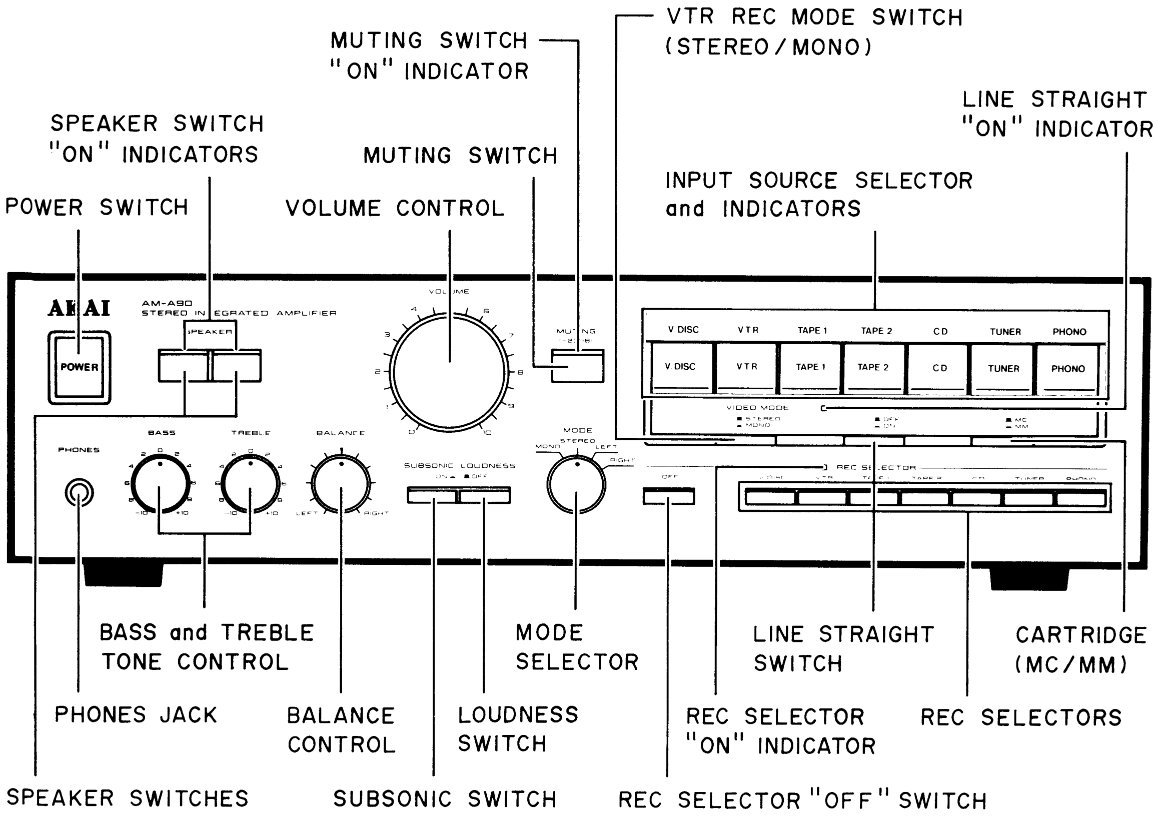

MUTING SWITCH "ON" INDICATOR
VTR REC MODE SWITCH (STEREO / MONO)
LINE STRAIGHT "ON" INDICATOR
SPEAKER SWITCH "ON" INDICATORS
MUTING SWITCH
INPUT SOURCE SELECTOR and INDICATORS
POWER SWITCH
VOLUME CONTROL
AKAI
AM-A90
STEREO INTEGRATED AMPLIFIER
POWER
SPEAKER
VOLUME
MUTING
V.DISC
VTR
TAPE 1
TAPE 2
CD
TUNER
PHONO
VIDEO MODE
PHONES
BASS
TREBLE
BALANCE
SUBSONIC
LOUDNESS
MODE
STEREO
MONO
LEFT
RIGHT
OFF
REC SELECTOR
BASS and TREBLE TONE CONTROL
MODE SELECTOR
LINE STRAIGHT SWITCH
CARTRIDGE (MC/MM)
PHONES JACK
BALANCE CONTROL
LOUDNESS SWITCH
REC SELECTOR "ON" INDICATOR
REC SELECTORS
SPEAKER SWITCHES
SUBSONIC SWITCH
REC SELECTOR "OFF" SWITCH

Fig. 3-1 Front View

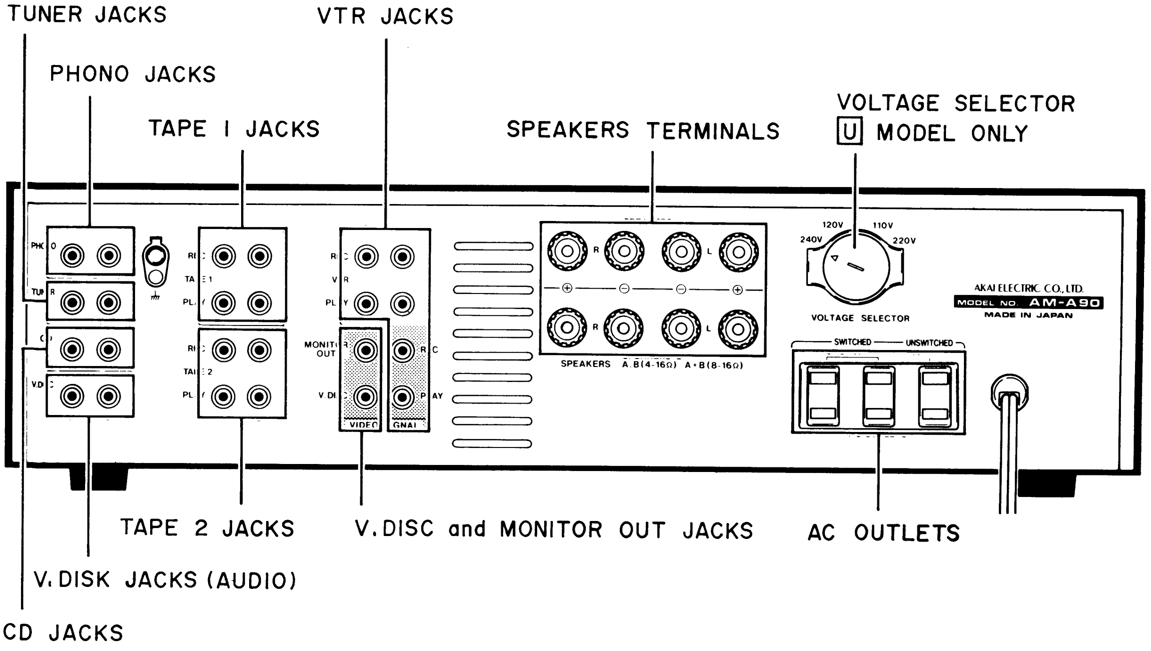

TUNER JACKS
VTR JACKS
PHONO JACKS
VOLTAGE SELECTOR
U MODEL ONLY
TAPE I JACKS
SPEAKERS TERMINALS
120V
110V
240V
220V
VOLTAGE SELECTOR
AKAI ELECTRIC CO., LTD.
MODEL NO. AM-A90
MADE IN JAPAN
SWITCHED
UNSWITCHED
SPEAKERS A.B(4-16Ω) A+B(8-16Ω)
MONITOR OUT
VIDEO
SIGNAL
TAPE 2 JACKS
V.DISC and MONITOR OUT JACKS
AC OUTLETS
V.DISK JACKS (AUDIO)
CD JACKS

Fig. 3-2 Rear View

IV. PRINCIPAL PARTS LOCATION

POWER
TRANSFORMER T901
AM-A90T-70 U
30 C,A
40 E
50 B,S
60 V

FUSE PCB
A2037A501B U
511B C,A
521B E,B,S
531B V

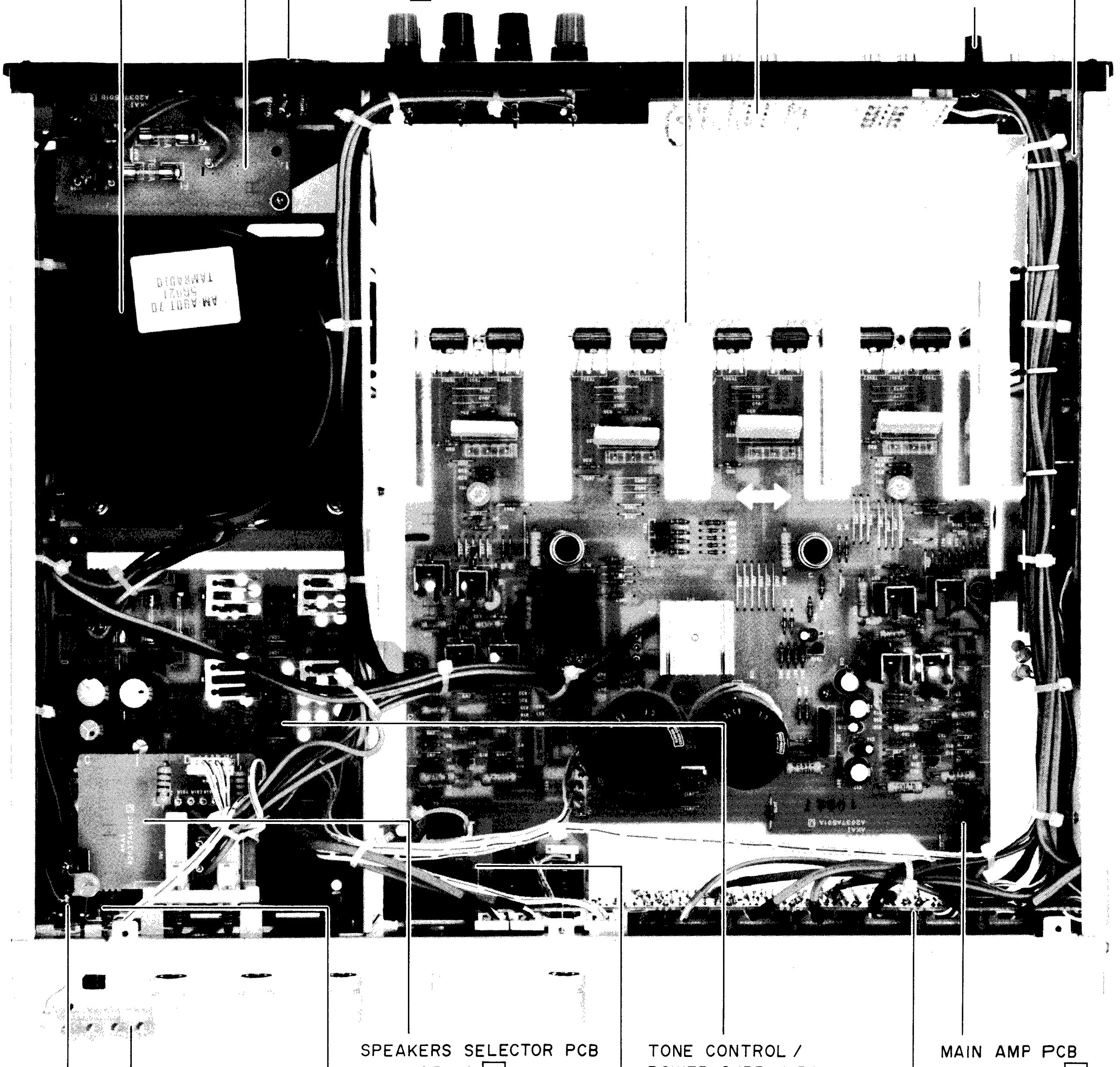
VOLTAGE SELECTOR
VS-901 U

JACK PCB
A2037A523A U,E,B,S
513A C,A
533A V

HEAT SINK

PRE AMP PCB
A2037A502A U,C,A,E,B,S
512A A

GND TERMINAL TM-901



SPEAKERS IND PCB
A2037A501D U
511D C,A
521D E,B,S
531D V

POWER SWITCH
SW901

SPEAKERS SELECTOR PCB
A2037A501C U
511C C,A
521C E,B,S
531C V

PHONES PCB
A2037A502C U,C,A,E,B,S
512C V

TONE CONTROL /
POWER SUPPLY PCB
A2037A523A U,E,B,S
513A C,A
533A V

VOLUME PCB
A2037A502D U,C,A,E,B,S
512D V

MAIN AMP PCB
A2037A501A U
511A C,A
521A E,B
531A V

SELECTOR PCB
A2037A502B U,C,A,E,B,S
512B V

Fig. 4-1

V. ADJUSTMENTS

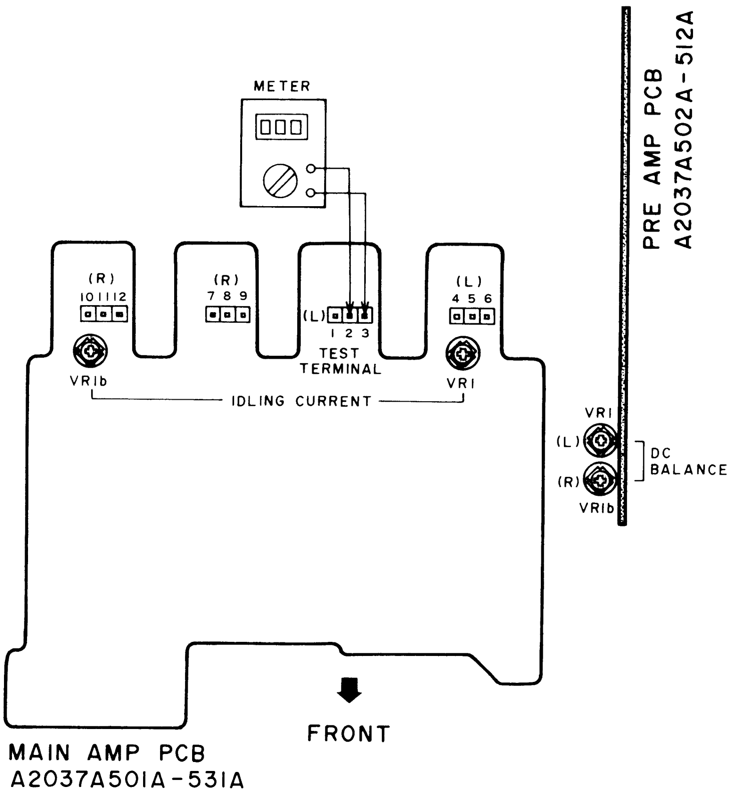

METER
(R)
10 11 12
(R)
7 8 9
(L)
1 2 3
TEST
TERMINAL
(L)
4 5 6
VR1b
VR1
IDLING CURRENT
PRE AMP PCB
A2037A502A-512A
VR1
(L)
(R)
VR1b
DC
BALANCE
FRONT
MAIN AMP PCB
A2037A501A-531A

Fig. 5-1

5-1. EQ AMP DC BALANCE ADJUSTMENT

1) Set the REC SELECTOR to PHONO (MM) mode.
2) Connect an Oscilloscope to TAPE REC OUT.
3) Adjust VR1 (on EQUALIZER PCB) so that the DC Voltage is less than 1mV DC.
4) Adjust VR_{1b} (R-ch) in the same manner as above.

5-2. IDLING CURRENT ADJUSTMENT

NOTE: 1.
This adjustment should be executed within 30 sec. after the power is turned on.

1) Connect a Digital Voltmeter (DC range) to the test terminal pin ① and ②, ② and ③, ④ and ⑤, ⑤ and ⑥ respectively, and measure the voltages (four voltages).
2) Connect the digital voltmeter to the test terminal in which the highest voltage has been measured and adjust VR1 so that the voltage between the test terminal is 3mV DC.
   (The minimum voltage between these test terminal should be more than 1mV DC.)
3) Adjust VR_{1b} (R-ch) in the same manner as above. (Use the test terminal pins ⑦ to ⑫ when measuring voltages for R-ch).

NOTE: 2.
The maximum tolerance of the voltages should be within 0.6mV to 5mV.
(Because of the difference in characteristics of the FET used.)

ATTENTION:
Precaution when replacing the power FET (TR902 to TR905 and TR902b to TR905b).
Make sure that to discharge the power supply voltage by connecting a resistor (100Ω/10W) between C13 pins (+ and –) and also between C12 pins (+ and –) after turn off the power for the safety and the protection of the FET.

VI. PC BOARD TITLE AND IDENTIFICATIONS

PC BOARD TITLE	PC BOARD NUMBER	REMARKS
MAIN AMP PC BOARD	A2037A501A	U
	511A	C A
	521A	E B
	531A	V
SELECTOR PC BOARD	A2037A502B	U C A E B S
	512B	V
PRE AMP PC BOARD	A2037A502A	U C A E B S
	512A	V
TONE CONTROL/POWER SUPPLY PC BOARD	A2037A523A	U E B S
	513A	C A
	533A	V
JACK PC BOARD	A2037A523B	U E B S
	513B	C A
	533B	V
SPEAKERS SELECTOR PC BOARD	A2037A501C	U
	511C	C A
	521C	E B S
	531C	V
SPEAKERS IND PC BOARD	A2037A501D	U
	511D	C A
	521D	E B S
	531D	V
SPEAKERS TERMINAL PC BOARD	A2018D5070	V ONLY
PHONES PC BOARD	A2037A502C	U C A E B S
	512C	V
FUSE PC BOARD	A2037A501B	U
	511B	C A
	521B	E B S
	531B	V
VOLUME PC BOARD	A2037A502D	U C A E B S
	512D	V

—MEMO—

SECTION 2

PARTS LIST

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2. PRE AMP PC BOARD 14
3. TONE CONTROL/POWER SUPPLY PC BOARD 15
4. MAIN AMP PC BOARD 15
5. JACK PC BOARD 16
6. SELECTOR PC BOARD 16
7. SPEAKER SLECTOR PC BOARD 16
8. SPEAKER IND PC BOARD 16
9. VOLUME PC BOARD 16
10. HEAD PHONE PC BOARD 16
11. SPEAKER TERMINAL PC BOARD (V ONLY) 16
12. FUSE PC BOARD 16
13. ASSEMBLY BLOCK 16
14. FINAL ASSEMBLY BLOCK 18
15. INDEX 19

Resistor and Capacitor which is not listed in this parts list, please refer to COMMON LIST FOR SERVICE PARTS.

ATTENTION

1. When placing an order for parts, be sure to list the parts no. model no., and description of each part. If any of this information is omitted, there are instances in which parts cannot be shipped or the wrong parts will be delivered.
2. Please be careful not to make a mistake in the parts no. If the parts no. is in error, a part different from the one ordered may be delivered.
3. Because part numbers and part definitions and supply in the Preliminary Parts List may have been the subject of changes, please use this parts list for all future reference.

HOW TO USE THIS PARTS LIST

1. This Parts List shows those parts which are considered necessary for repairs. Other parts, such as resistors and capacitors, are shown in the "Common List for Service Parts" from which these parts should be selected and parts.
2. The Recommended Spare Parts List shows those parts in the Parts List which are considered particularly important for service.
3. Parts not shown in the Parts List and "Common List for Service Parts" will not in principle be supplied.
4. How to read the parts list

   a) Mechanism Block

   b) P.C Board Block

2. HEAD BASE BLOCK

REF. NO.	PART NO.	DESCRIPTION
2-1x	BH-T2023A320A	HEAD BASE BLOCK GX-F66R
2-2	HP-H2206A010A	HEAD R/P PR4-8FU C
2-3	ZS-477876	PAN20×03STL CMT
2-4	ZS-536488	BID20×08STL CMT
2-5	ZG-402895	CS ANGLE ADJUST SPRING

SP (Service Parts) Classification

A small "x" indicates the inability to show that particular part in the Photo or Illustration.

This number corresponds with the individual parts index number in that figure

This number corresponds with the Figure Number

6. SYS. CON. P C BOARD BLOCK

REF. NO.	PART NO.	DESCRIPTION
6-1	BA-T2034A070A	PC SYS CON BLK GX-F44R
6-IC1	EI-324536	IC HD14049BP
6-IC2	EI-336801	IC MB8841-564M
6-IC3	EI-331661	IC SN7405N
6-IC4	EI-336725	IC M54527P
6-TR1to4	ET-200985	TR 2SC2603 F,G
6-TR5to28	ET-554657	TR 2SA733A P,Q
6-D1	ED-318292	D SILICON H 1S2473T-77 T26
6-D2to4	ED-308952	D GERMA V 1K34A-LR F07
6-D5to10	ED-318292	D SILICON H 1S2473T-77 T26
6-X1	EI-318384	OSC X'TAL NC-18C 3.579545MHZ

SP (Service Parts) Classification

These reference symbols correspond with component symbols in the Schematic Diagrams.

5. The kind of part and its installation position can both be determined by the Part Number. To determine where a part number is listed, utilize the Parts Index at the end of the Parts List. It is necessary first of all to find the Part Number. This can be accomplished by using the Reference Number listed at the right of the part number in the Parts Index.

WARNING

⚠ INDICATES SAFETY CRITICAL COMPONENTS. FOR CONTINUED SAFETY, REPLACE SAFETY CRITICAL COMPONENTS ONLY WITH MANUFACTURE'S RECOMMENDED PARTS

AVERTISSEMENT

⚠ IL INDIQUE LES COMPOSANTS CRITIQUES DE SÉCURITÉ. POUR MAINTENIR LE DEGRÉ DE SÉCURITÉ DE L'APPAREIL, NE REMPLACER QUE DES PIÉCES RECOMMANDEES PAR LE FABRICANT

RECOMMENDED SPARE PARTS

Because, if the parts listed below are on hand, almost any repair can be accomplished, we suggest that you stock these Recommended Spare Parts Items.

REF. NO.	PART NO.	DESCRIPTION
1 N	BT-355474	⚠ TRANS POWER AM-A90T-30 (C,A)
2 N	BT-355475	⚠ TRANS POWER AM-A90T-40 (E)
3 N	BT-355476	⚠ TRANS POEWR AM-A90T-50 (B,S)
4 N	BT-361997	⚠ TRANS POWER AM-A90T-60 (V)
5 N	BT-355473	⚠ TRANS POWER AM-A90T-70 (U)
6 N	ED-355425	D LED BG-5725-B7 GREEN
7	ED-356424	D LED BG5525S GREEN
8	ED-354114	D LED BR5507S RED
9	ED-355426	D LED PR-5705S-B7 RED
10	ED-345555	D SILICON DBB10C 200/1.0A
11	ED-348990	D SILICON H DS446
12	ED-301911	D SILICON H DS448
13 N	ED-355437	D SILICON PB-102F
14	ED-348786	D SILICON RB154 400/1.5A
15	ED-346613	D ZENER H HZ11 C3
16	ED-310387	D ZENER H HZ12 B2
17	ED-328486	D ZENER H HZ15 3
18	ED-315759	D ZENER H HZ16 1
19	ED-324013	D ZENER H HZ20 2
20	ED-332336	D ZENER H HZ20 3
21	ED-329051	D ZENER H HZ24 3
22	ED-346625	D ZENER H HZ30 3
23	ED-346603	D ZENER H HZ6 A1
24 N	EF-355226	⚠ FUSE BET T 1.00A 250V [B]
25 N	EF-359517	⚠ FUSE BET T 6.30A 250V [B]
26 N	EF-360692	⚠ FUSE CES6 125V 10.00A [C,A]
27	EF-623103	⚠ FUSE SEMKO T 1.00A 250V [U,E,V,S]
28	EF-224605	⚠ FUSE SEMKO T 6.30A 250V [U]
29	EF-310229	⚠ FUSE TSC 125V 1.00A [C,A]
30	EF-309392	⚠ FUSE TSC 125V 1.25A [C,A]
31	EI-345474	⚠ IC HA12002
32	EI-355697	⚠ IC M5221P
33	EI-344764	IC M5218P-21
34 N	EL-355435	PL LEAD 14.3V 80MA
35	EQ-355431	⚠ RELAY POWER G4W2212P 12V
36 N	EQ-355458	RELAYSIG G2Q-187P-V 12V
37	EQ-348929	⚠ RELAY SIG G5A-232P 2TR 12V
38 N	ER-359522	⚠ R CT W R22+R22/5W
39 N	ES-355407	⚠ SW PUSH ESB-99713V TV-8
40	ES-349070	⚠ SW SELECTOR YKS11-0002 02-4 [U]
41	ES-345481	SW PUSH SPEA12089A 04-2N
42	ES-348841	SW PUSH SPEA12090A 04-2S
43 N	ES-355417	SW PUSH SPEA71 7 THROW
44 N	ES-355418	SW PUSH SPEA84 8 THROW
45 N	ES-355428	SW PUSH SPUJ241
46 N	ES-355436	SW ROTARY SRBU244
47 N	ES-355433	SW PUSH SPUL241
48 N	ET-355414	⚠ TR FET 2SJ115 O,Y
49 N	ET-355413	⚠ TR FET 2SK405 O,Y
50	ET-355782	⚠ TR 2SD1247 T,U
51 N	ET-360750	TR FET 2SJ74 BL
52	ET-321016	TR FET 2SK117 GR,BL
53 N	ET-360749	TR FET 2SK170 BL
54 N	ET-359827	TR FET 2SK246 BL
55	ET-337759	TR FET 2SK246 GR
56	ET-338244	TR 2SA1207 R,S
57	ET-348829	TR 2SA1209 S,T
58	ET-348834	TR 2SA1220 Q,P
59	ET-345626	TR 2SA1248 S,T
60	ET-355626	TR 2SA992 E,F
61	ET-347143	TR 2SC1845 E,F
62	ET-308141	TR 2SC2603 G
63	ET-348835	TR 2SC2690 Q,P
64	ET-348830	TR 2SC2909 S,T
65	ET-348831	TR 2SC2911 S,T
66	ET-345625	TR 2SC3116 S,T
67	ET-349081	TR 2SC3383 S,T
68	ET-310148	TR 2SD612K E,F
69	EV-380204	R S-FIX H SR19R 3P 0.15W 102
70	EV-338118	R S-FIX V H1052A 3P 0.15W 104
71 N	EV-355456	VR ROTARY RKDA10 105
72 N	EV-355457	VR ROTARY RKDA2S 100KCX2
73 N	EV-355466	VR ROTARY RKDA20 100KCX2
74 N	EV-355427	VR ROTARY RKGA20-250KBX2

"NOTE' N : New Parts

SYMBOL FOR DESTINATION

[A] : AAL (USA)
[B] : UK (England)
[C] : CSA (Canada)
[E] : CEE (Europe)
[S] : SAA (Australia)
[U] : U/T (Universal Area)
[V] : VDE (West Germany)

1. PC BOARD BLOCK

REF. NO.	PART NO.	DESCRIPTION
1-1A	BA-A2037A020A	PC PRE BLK AM-A90 (U,C,A,E,B,S)
1-1B	BA-A2037A020B	PC PRE BLK AM-A90 (V)
1-2A	BA-A2037A040A	PC TONE BLK AM-A90 (U,E,B,S)
1-2B	BA-A2037A040E	PC TONE BLK AM-A90 (C,A)
1-2C	BA-A2037A040B	PC TONE BLK AM-A90 (V)
1-3A	BA-A2037A030A	PC MAIN BLK AM-A90 (U)
1-3B	BA-A2037A030B	PC MAIN BLK AM-A90 (C,A)
1-3C	BA-A2037A030C	PC MAIN BLK AM-A90 (E,B,S)
1-3D	BA-A2037A030D	PC MAIN BLK AM-A90 (V)

NOTE:

(1) PC PRE BLK consists of following PC BOARDS.
- PRE AMP PC BOARD
- SELECTOR PC BOARD
- VOLUME PC BOARD
- HEAD PHONE PC BOARD

(2) PC TONE BLK consists of following PC BOARDS.
- TONE CONTROL/POWER SUPPLY PC BOARD
- JACK PC BOARD

(3) PC MAIN BLK consists of following PC BOARDS
- MAIN AMP PC BOARD
- SPEAKER SELECTOR PC BOARD
- SPEAKER IND PC BOARD
- FUSE PC BOARD

2. PRE AMP PC BOARD

REF. NO.	PART NO.	DESCRIPTION
2-IC1	EI-355697	IC M5221P
2-TR1	ET-360749	TR FET 2SK170 BL
2-TR2	ET-360750	TR FET 2SJ74 BL
2-TR3	ET-345625	⚠ TR 2SC3116 S,T
2-TR4	ET-345626	⚠ TR 2SA1248 S,T
2-TR5	ET-355626	TR 2SA992 E,F
2-TR6	ET-347143	TR 2SC1845 E,F
2-TR7	ET-348834	TR 2SA1220 Q,P
2-TR8	ET-348835	TR 2SC2690 Q,P
2-TR9	ET-348831	TR 2SC2911 S,T
2-TR10	ET-348829	TR 2SA1209 S,T
2-D1	ED-301911	D SILICON H DS448
2-D2,3	ED-328486	D ZENER H HZ15 3
2-D4 to 7	ED-348990	D SILICON H DS446
2-VR1	EV-338118	R S-FIX V H1052A 3P 0.15W 104
2-L1	EO-337684	COIL FIX 2 FL12R751E 751K [V]
2-RL1	EQ-348929	RELAY SIG G5A-232P 2TR 12V
2-R1	ER-346929	R MF H 1/4W 473J
2-R5,8	ER-359825	⚠ R OMF H S20 FS 2W 621J
2-R27	ER-359508	R MF H 1/4W 5103G
2-R28	ER-359509	R MF H 1/4W 4703G
2-R29	ER-359510	R MF H 1/4W 5602G
2-R30	ER-359511	R MF H 1/4W 3302G
2-R31	ER-359512	R MF H 1/4W 5102G
2-R32	ER-359513	R MF H 1/4W 4702G
2-R33	ER-359514	R MF H 1/4W 5601G
2-R34	ER-359516	R MF H1/4W 3301G
2-R43,46	ER-359524	⚠ R OMF H S20 FS 2W 362J
2-R47,48	ER-338187	R MF H 1/4W 153J
2-C1A	EC-349083	⚠ C STY V CUT CQ09S2B 101J 125DC [EXCEPT V]
2-C1B	EC-350675	⚠ C STY V CUT CQ09S2B 331J 125DC [V]
2-C2	EC-350745	⚠ C STY V CUT CQ09S2B 102J 125DC
2-C3	EC-355434	⚠ C MY V MKT 105K 100DC
2-C4	EC-343892	⚠ C PP V F05 FPS 1302G 100DC
2-C5	EC-359530	C PP V F05 PP 3601G 50DC
2-C6	EC-343917	⚠ C PP V F07 FPS 1303G 100DC
2-C7	EC-359531	C PP V F05 PP 3602G 50DC
2-C8	EC-345656	C PP V F05 PP 473J 50DC
2-J1	EJ-337404	PIN J AJC-052-ABB P 6P
2-J2	EJ-337424	PIN J AJC-034-ABB P 2P

3. TONE CONTROL/POWER SUPPLY PC BOARD

REF. NO.	PART NO.	DESCRIPTION
	TONE CONTROL/POWER SUPPLY PC BOARD	
3-IC1	EI-344764	IC M5218P-21
3-TR1,2	ET-337759	TR FET 2SK246 GR
3-TR3	ET-345625	⚠ TR 2SC3116 S,T
3-TR4	ET-345626	TR 2SA1248 S,T
3-TR5,6	ET-337759	TR FET 2SK246 GR
3-TR7	ET-345625	⚠ TR 2SC3116 S,T
3-TR8	ET-345626	⚠ TR 2SA1248 S,T
3-TR9	ET-310148	⚠ TR 2SD612K E,F
3-TR10	ET-359827	TR FET 2SK246 BL
3-D1	ED-348786	⚠ D SILICON RB154 400/1.5A
3-D2 to 5	ED-346625	⚠ D ZENER H HZ30 3
3-D6,7	ED-315759	⚠ D ZENER H HZ16 1
3-D8 to 11	ED-329051	⚠ D ZENER H HZ24 3
3-D12	ED-345555	⚠ D SILICON DBB10C 200/1.0A
3-D13	ED-310387	⚠ D ZENER H HZ12 B2
3-D14	ED-332336	⚠ D ZENER H HZ20 3
3-VR1	EV-355456	VR ROTARY RKDA10 105
3-VR2	EV-355457	VR ROTARY RKDA2S 100KCX2
3-VR3	EV-355466	VR ROTARY RKDA20 100KCX2
3-R18	ER-324184	⚠ R CB H S10 FS RDS 1/4W 121J
3-R19,20	ER-359823	R MF H 1/4W 203J
3-R21	ER-324184	⚠ R CB H S10 FS RDS 1/4W 121J
3-R22,23	ER-359826	⚠ R OMF H S20 FS 2W 302J
3-R24	ER-324184	⚠ R CB H S10 FS RDS 1/4W 121J
3-R25,26	ER-346929	R MF H 1/4W 473J
3-R27,29	ER-324184	⚠ R CB H S10 FS RDS 1/4W 121J
3-R30	ER-359824	⚠ R OMF H S20 FS 2W 822J
3-C8,9	EC-201640	C EC V CUT SM 331M 100DC
	ASSEMBLY BLOCK	
3-F3A	EF-309392	⚠ FUSE TSC 125V 1.25A [C,A]
3-F3B	EF-623103	⚠ FUSE SEMKO T 1.00A 250V [U,E,V,S]
3-F3C	EF-355226	⚠ FUSE BET T 1.00A 250V [B]
3-F4A	EF-309392	⚠ FUSE TSC 125V 1.25A [C,A]
3-F4B	EF-623103	⚠ FUSE SEMKO T 1.00A 250V [U,E,V,S]
3-F4C	EF-355226	⚠ FUSE BET T 1.00A 250V [B]
3-F5A	EF-310229	⚠ FUSE TSC 125V 1.00A [C,A]
3-F5B	EF-623103	⚠ FUSE SEMKO T 1.00A 250V [U,E,V,S]
3-F5C	EF-355226	⚠ FUSE BET T 1.00A 250V [B]

4. MAIN AMP PC BOARD

REF. NO.	PART NO.	DESCRIPTION
4-IC1	EI-355697	⚠ IC M5221P
4-IC2	EI-345474	IC HA12002
4-TR1	ET-321016	TR FET 2SK117 GR,BL
4-TR2	ET-348835	TR 2SC2690 Q,P
4-TR3	ET-348834	TR 2SA1220 Q,P
4-TR4	ET-348830	TR 2SC2909 S,T
4-TR5	ET-348830	TR 2SC2909 S,T
4-TR6	ET-348829	⚠ TR 2SA1209 S,T
4-TR7	ET-348831	⚠ TR 2SC2911 S,T
4-TR8	ET-348831	⚠ TR 2SC2911 S,T
4-TR9	ET-348829	⚠ TR 2SA1209 S,T
4-TR10	ET-348830	TR 2SC2909 S,T
4-TR11	ET-348830	TR 2SC2909 S,T
4-TR12	ET-338244	TR 2SA1207 R,S
4-D1	ED-324013	D ZENER H HZ20 2
4-D2	ED-324013	D ZENER H HZ20 2
4-D3	ED-348990	D SILICON H DS446
4-D4	ED-346613	D ZENER H HZ11 C3
4-D5	ED-346613	D ZENER H HZ11 C3
4-D6	ED-348990	D SILICON H DS446
4-D7	ED-346603	D ZENER H HZ6 A1
4-D8 to 12	ED-301911	D SILICON H DS448
4-D13	ED-355437	⚠ D SILICON PB-102F
4-D14	ED-348990	D SILICON H DS446
4-D15	ED-348990	D SILICON H DS446
4-D16	ED-301911	D SILICON H DS448
4-SW1	ES-355428	SW PUSH SPUJ241
4-SW2	ES-355436	SW ROTARY SRBU244
4-VR1	EV-380204	R S-FIX H SR19R 3P 0.15W 102
4-L1	EO-332116	COIL FIX 2 103AK-006A 2R2K
4-RL1	EQ-355431	RELAY POWER G4W2212P 12V
4-R4A	ER-362240	R MF H 1/4W 105J
4-R4B	ER-338183	R MF H 1/4W 104J
4-R5	ER-359521	⚠ R OMF H S20 FS 2W 332J
4-R8	ER-359521	⚠ R OMF H S20 FS 2W 332J
4-R9	ER-311760	R MF H 1/4W 1802F
4-R10	ER-311760	R MF H 1/4W 1802F
4-R15	ER-341331	⚠ R OMF H S15 FS 1W 181J
4-R16	ER-341331	⚠ R OMF H S15 FS 1W 181J
4-R22	ER-333429	⚠ R CB H S10 FS RDS 1/4W 682J
4-R22	ER-333429	⚠ R CB H S10 FS RDS 1/4W 682J
4-R24	ER-325638	⚠ R OMF H S15 FS 1W 271J
4-R27	ER-325638	⚠ R OMF H S15 FS 1W 271J
4-R30	ER-322787	⚠ R CB H S10 FS RDS 1/4W 100J
4-R31	ER-322787	⚠ R CB H S10 FS RDS 1/4W 100J
4-R32	ER-328071	⚠ R CB H S10 FS RDS 1/4W 392J
4-R33 to 36	ER-324185	⚠ R CB H S10 FS RDS 1/4W 221J
4-R37	ER-316802	⚠ R CB H S10 FS RDS 1/4W 471J
4-R38	ER-359522	⚠ R CT W R22+R22/5W
4-R39	ER-359522	⚠ R CT W R22+R22/5W
4-R50	ER-359520	⚠ R OMF H S20 FS 2W 120J
4-R52	ER-359520	⚠ R OMF H S20 FS 2W 120J
4-R65	ER-359521	⚠ R OMF H S20 FS 2W 332J
4-R68	ER-359823	R MF H 1/4W 203J
4-R69	ER-338183	R MF H 1/4W 104J
4-C1	EC-344155	C PP V F05 PP 181J 50DC
4-C2	EC-345655	C PP V F05 PP 223J 50DC
4-C3A	EC-362238	C PP V F05 PP 203J 50DC [EXCEPT V]
4-C3B	EC-359525	C PP V F05 PP 823J 50DC [V]
4-C4	EC-359829	C PP V F05 PP 151J 50DC
4-C5	EC-345656	C PP V F05 PP 473J 50DC
4-C9	EC-355461	⚠ C MY V MKT 334K 100DC
4-C12	EC-355462	⚠ C EC V SNP 133M 71.0DC
4-C13	EC-355462	⚠ C EC V SNP 123M 71.0DC

5. JACK PC BOARD

REF. NO.	PART NO.	DESCRIPTION
5-TR1	ET-308141	TR 2SC2603 G
5-TR2	ET-308141	TR 2SC2603 G
5-TR3	ET-308141	⚠ TR 2SC2603 G
5-TR4	ET-308141	⚠ TR 2SC2603 G
5-RL1	EQ-355458	RELAY SIG G2Q-187P-V 12V
5-R8	ER-324337	⚠ R CB H S10 FS RSD 1/4W 560J
5-R17	ER-322591	⚠ R CB H S10 FS RDS 1/4W 101J
5-R18	ER-322591	⚠ R CB H S10 FS RDS 1/4W 101J
5-J3 to 5	EJ-336915	PIN J AJC-054-ABB P 4P
5-J6	EJ-355459	PIN J YKC21-0157 P 4P

6. SELECTOR PC BOARD

REF. NO.	PART NO.	DESCRIPTION
6-TR1 to 3	ET-349081	TR 2SC3383 S,T
6-D1	ED-354114	D LED BR5507S RED
6-D2	ED-355425	D LED BG-5725-B7 GREEN
6-D3	ED-355426	D LED PR-5705S-B7 RED
6-SW1	ES-355417	SW PUSH SPEA71 7 THROW
6-SW2	ES-355418	SW PUSH SPEA84 8 THROW
6-SW3	ES-348841	SW PUSH SPEA12090A 04-2S
6-SW4	ES-345481	SW PUSH SPEA12089A 04-2N
6-SW5	ES-348841	SW PUSH SPEA12090A 04-2S
6-SW6	ES-345481	SW PUSH SPEA12089A 04-2N
6-IN1 to 7	EL-355435	PL LEAD 14.3V 80MA

7. SPEAKER SELECTOR PC BOARD

REF. NO.	PART NO.	DESCRIPTION
7-SW1	ES-355433	SW PUSH SPUL241
7-R1	ER-306416	⚠ R OMF H S20 FS 2W 271J
7-R2	ER-306416	⚠ R OMF H S20 FS 2W 271J

8. SPEAKER IND PC BOARD

REF. NO.	PART NO.	DESCRIPTION
8-D1 to 4	ED-356424	D LED BG5525S GREEN

9. VOLUME PC BOARD

REF. NO.	PART NO.	DESCRIPTION
9-VR1	EV-355427	VR ROTARY RKGA20-250KBX2

10. HEAD PHONE PC BOARD

REF. NO.	PART NO.	DESCRIPTION
10-R1	ER-557583	⚠ R OMF H FS 2W 431J
10-J19	EJ-348846	PHONE J 3P HLJ0540 6.3

11. SPEAKER TERMINAL PC BORAD (V ONLY)

REF. NO.	PART NO.	DESCRIPTION
11-TM902	EJ-342935	TERMINAL W/SCREW YKD31-0132 P 8P [V]

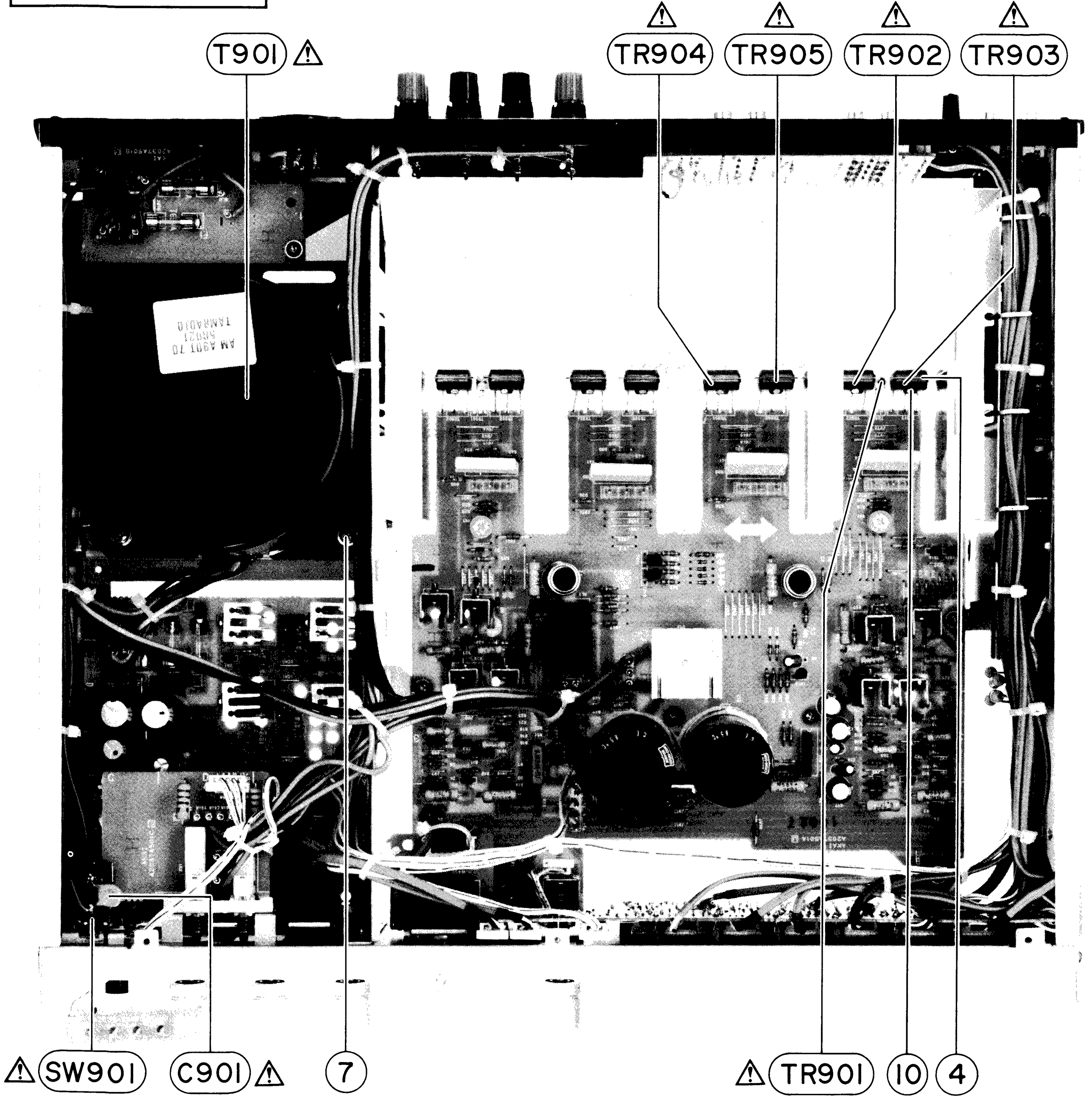
12. FUSE PC BOARD

REF. NO.	PART NO.	DESCRIPTION
	FUSE PC BOARD	
12-L1	EO-338409	COIL LF FKOB160MH02 250UH [V]
	ASSEMBLY BLOCK	
12-F1A	EF-242605	⚠ FUSE SEMKO T 6.30A 250V [U]
12-F1B	EF-360692	⚠ FUSE CES6 125V 10.00A [C,A]
12-F1C	EF-242605	⚠ FUSE SEMKO T 6.30A 250V [E,V,S]
12-F1D	EF-359517	⚠ FUSE BET T 6.30A 250V [B]
12-F2	EF-242605	⚠ FUSE SEMKO T 6.30A 250V [U]

13. ASSEMBLY BLOCK

REF. NO.	PART NO.	DESCRIPTION
	ASSEMBLY BLOCK	
13-1A	SP-358664E	PANEL REAR AM-A90 (U)
13-1B	SP-358664F	PANEL REAR AM-A90 (A,C)
13-1C	SP-358664G	PANEL REAR AM-A90 (E)
13-1D	SP-358664H	PANEL REAR AM-A90 (B,S)
13-1E	SP-358664K	PANEL REAR AM-A90 (V)
13-2	EJ-329610	TERMINAL W/SCREW UB-0067 L1P
13-3	ZS-319460	T2BR30X06STL BZN PROJECTION
13-4	EZ-345459	TRANSISTOR SUPPORT BFG-20T0-3P
13-5A	EW-374894	⚠ AC CORD 2 CORES VM-0129A, VFF U/T [U]
13-5B	EW-349427	⚠ AC CORD 2 CORES KP-8W, SPT-2 UC [C,A]
13-5C	EW-347897	⚠ AC CORD 2 OCRES VM0364, LCFL EV [E,V]
13-5D	EW-346249	⚠ AC CORD 2 CORES LCFL2×0.75 B [B]
13-5E	EW-338517	⚠ AC CORD KP-560, LTSA-2F S [S]
13-6	EZ-631945	STRAIN RELIEF SR-4N-4
13-7	ZS-345624	ST PAN40x08STL CMT CUP [POWER TRANS FIX]
13-8	SA-312465	FOOT CIRCULAR (A) PART CA
13-9	ZS-325495	T2BR30×06STL CMT [FOOT FIX]
13-10	ZS-345436B	SCREW TRANSISTOR (B)
13-T901A	BT-355473	⚠ TRANS POWER AM-A90T-70 (U)
13-T901B	BT-355474	⚠ TRANS POWER AM-A90T-30 (C,A)
13-T901C	BT-355475	⚠ TRANS POWER AM-A90T-40 (E)
13-T901D	BT-355476	⚠ TRANS POWER AM-A90T-50 (B,S)
13-T901E	BT-361997	⚠ TRANS POWER AM-A90T-60 (V)
13-TR901	ET-355782	⚠ TR 2SD1247 T,U
13-TR902	ET-355413	⚠ TR FET 2SK405 O,Y
13-TR903	ET-355413	⚠ TR FET 2SK405 O,Y
13-TR904	ET-355414	⚠ TR FET 2SJ115 O,Y
13-TR905	ET-355414	⚠ TR FET 2SJ115 O,Y
13-VS901	ES-349070	⚠ SW SELECTOR YKS11-0002 02-4 [U]
13-SW901	ES-355407	⚠ SW PUSH ESB-99713V TV-8
13-J901A	EJ-337405	⚠ SOCKET OUTLET S2T733T164 JUC 3×2P [U]
13-J901B	EJ-352642	⚠ SOCKET OUTLET S2T733T114T [C,A]
13-TM902A	EJ-337406	TERMINAL W/SCREW ANB-024-AAA S 8P [U,C,A,E,B,S]
13-TM902B	EJ-342935	TERMINAL W/SCREW YKD31-0132 P 8P [V]
13-C901A	EC-320548	⚠ C CE V F 103Z 250AC [U]
13-C901B	EC-338411	⚠ C CE V FZ 103P 400AC [C,A,E, V,B,S]
	PRE AMP PC BOARD	
2-J1	EJ-337404	PIN J AJC-052-ABB P 6P
2-J2	EJ-337424	PIN J AJC-034-ABB P 2P
	JACK PC BOARD	
5-J3	EJ-336915	PIN J AJC-054-ABB P 4P
5-J4	EJ-336915	PIN J AJC-054-ABB P 4P
5-J5	EJ-336915	PIN J AJC-054-ABB P 4P
5-J6	EJ-355459	PIN J YKC21-0157-P 4P

ASSEMBLY BLOCK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C901 ⚠
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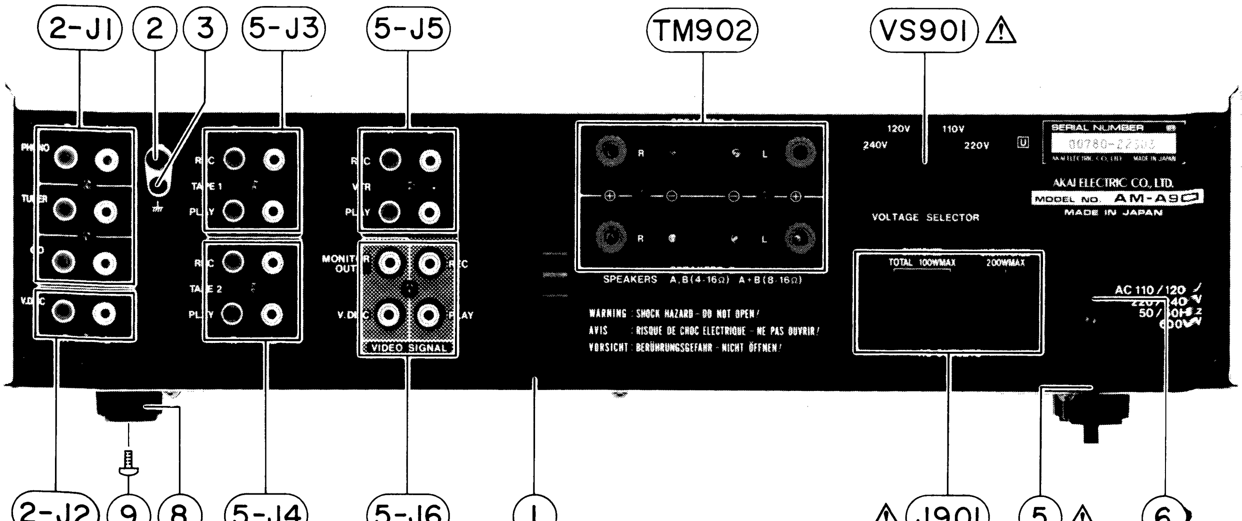
⚠ TR901
10
4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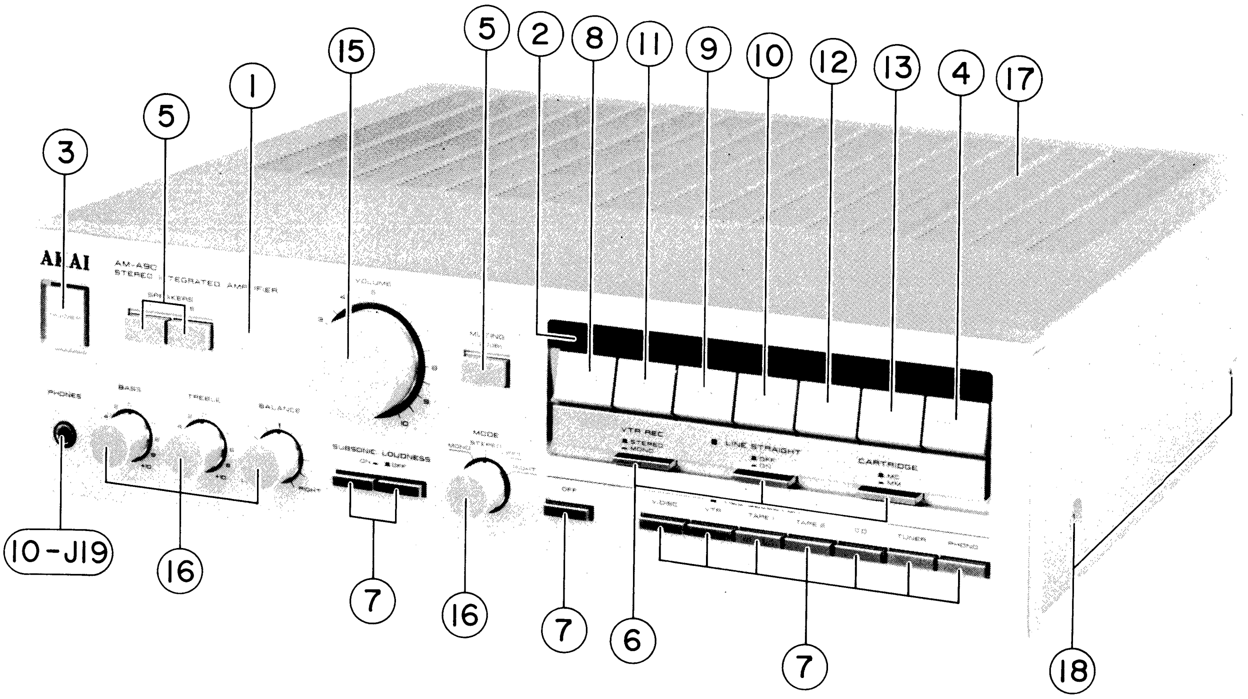
2
3
5-J3
5-J5
TM902
VS901 ⚠
PHONO
TUNER
CD
V.DISC
REC
TAPE 1
PLAY
TAPE 2
VTR
MONITOR OUT
VIDEO SIGNAL
SPEAKERS A,B(4-16Ω) A+B(8-16Ω)
WARNING : SHOCK HAZARD - DO NOT OPEN!
AVIS : RISQUE DE CHOC ELECTRIQUE - NE PAS OUVRIR!
VORSICHT : BERÜHRUNGSGEFAHR - NICHT ÖFFNEN!
120V 110V
240V 220V
VOLTAGE SELECTOR
SERIAL NUMBER
AKAI ELECTRIC CO., LTD.
MODEL NO. AM-A90
MADE IN JAPAN
TOTAL 100WMAX 200WMAX
AC 110/120 / 220/240 V
50/60Hz
600W
2-J2
9
8
5-J4
5-J6
1
⚠ J901
5 ⚠
6

FINAL ASSEMBLY BLOCK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5
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3
AKAI
AM-A90
STEREO INTEGRATED AMPLIFIER
SPEAKERS
VOLUME
MUTING
PHONES
BASS
TREBLE
BALANCE
SUBSONIC LOUDNESS
MODE
VTR REC
LINE STRAIGHT
CARTRIDGE
TUNER
PHONO
10-J19
16
7
16
7
6
7
18

14. FINAL ASSEMBLY BLOCK

REF. NO.	PART NO.	DESCRIPTION
	PANEL FRONT BLOCK	
14-1	BD-A2037A060A	PANEL FRONT BLK AM-A90
14-1B	BD-A2037A060C	PANEL FRONT BLK AM-A90-B
14-2	SE-358656	WINDOW FILTER
14-3	SK-345231A	CAP POWER
14-3B	SK-345231C	CAP POWER-B
14-4	SK-B358655A7	KNOB PUSH (D-13) PART (PHONO)
14-4B	SK-B358655B7	KNOB PUSH (D14) B PART (PHONO-B)
14-5	SK-358649A	KNOB PUSH (A)
14-5B	SK-358649B	KNOB PUSH (A)-B
14-6	SK-358651A	KNOB PUSH (B)
14-6B	SK-358651B	KNOB PUSH (B)-B
14-7	SK-358653A	KNOB PUSH (C)
14-7B	SK-358653B	KNOB PUSH (C)-B
14-8	SK-B358655A1	KNOB PUSH (D-1) PART (V. DISC)
14-8B	SK-B358655B1	KNOB PUSH (D-2) B PART (V. DISC-B)
14-9	SK-B358655A2	KNOB PUSH (D-3) PART (TAPE 1)
14-9B	SK-B358655B2	KNOB PUSH (D-4) B PART (TAPE 1-B)
14-10	SK-B358655A3	KNOB PUSH (D-5) PART (TAPE 2)
14-10B	SK-B358655B3	KNOB PUSH (D-6) B PART (TAPE 2-B)
14-11	SK-B358655A4	KNOB PUSCH (D-7) PART (VTR)
14-11B	SK-B358655B4	KNOB PUSH (D-8) B PART (VTR-B)
14-12	SK-B358655A5	KNOB PUSH (D-9) PART (CD)
14-12B	SK-B358655B5	KNOB PUSH (D-10) B PART (CD-B)
14-13	SK-B358655A6	KNOB PUSH (D-11) PART (TUNER)
14-13B	SK-B358655B6	KNOB PUSH (D-12) B PART (TUNER-B)
	FINAL ASSEMBLY BLOCK	
14-14x	ZS-447840	T2BR30x08STL CMT [PANEL FRONT FIX]
14-15	SK-358657A	KNOB MAIN VOLUME
14-15B	SK-358657B	KNOB MAIN VOLUME-B
14-16	SK-358658A	KNOB VOLUME
14-16B	SK-358658B	KNOB VOLUME-B
14-17	SP-358673A	COVER UPPER
14-17B	SP-358673B	COVER UPPER-B
14-18	ZS-322570	ST BID40x08STL NI3 [COVER UPPER FIX]
14-18B	ZS-322580	ST BID40x08STL BNI [COVER UPPER FIX]
	HEAD PHONE PC BOARD	
10-J19	EJ-448846	PHONE J 3P HLJ0540 6.3

NOTE:

PANEL FRONT BLK consists of 14-2 to 14-13B.

SYMBOL FOR COLOR VARIATION

NON : STANDARD COLOR

B : BLACK

INDEX

PART NO.	REF. NO.
BA-A2037A020A	1-1A
BA-A2037A020B	1-1B
BA-A2037A030A	1-3A
BA-A2037A030B	1-3B
BA-A2037A030C	1-3C
BA-A2037A030D	1-3D
BA-A2037A040A	1-2A
BA-A2037A040B	1-2C
BA-A2037A040E	1-2B
BD-A2037A060A	14-1
BD-A2037A060C	14-1B
BT-355473	13-T901A
BT-355474	13-T901B
BT-355475	13-T901C
BT-355476	13-T901D
BT-361997	13-T901E
EC-201640	3-C8
EC-201640	3-C9
EC-320548	13-C901A
EC-338411	13-C901B
EC-343892	2-C4
EC-343917	2-C6
EC-344155	4-C1
EC-345655	4-C2
EC-345656	2-C8
EC-345656	4-C5
EC-349083	2-C1A
EC-350675	2-C1B
EC-350745	2-C2
EC-355434	2-C3
EC-355461	4-C9
EC-355462	4-C12
EC-355462	4-C13
EC-359525	4-C3B
EC-359530	2-C5
EC-359531	2-C7
EC-359829	4-C4
EC-362238	4-C3A
ED-301911	2-D1
ED-301911	4-D8
ED-301911	4-D9 to 12
ED-301911	4-D16
ED-310387	3-D13
ED-315759	3-D6
ED-315759	3-D7
ED-324013	4-D1
ED-324013	4-D2
ED-328486	2-D2
ED-328486	2-D3
ED-329051	3-D8 to 11
ED-332336	3-D14
ED-345555	3-D12
ED-346603	4-D7
ED-346613	4-D4
ED-346613	4-D5
ED-346625	3-D2
ED-346625	3-D3 to 5
ED-348786	3-D1
ED-348990	2-D4 to 7
ED-348990	4-D3
ED-348990	4-D6
ED-348990	4-D14
ED-348990	4-D15
ED-354114	6-D1
ED-355425	6-D2
ED-355426	6-D3
ED-355437	4-D13
ED-356424	8-D1 to 4
EF-242605	12-F1A
EF-242605	12-F1C
EF-242605	12-F2
EF-309392	3-F3A
EF-309392	3-F4A
EF-310229	3-F5A
EF-355226	3-F3C
EF-355226	3-F4C
EF-355226	3-F5C
EF-359517	12-F1D
EF-360692	12-F1B
EF-623103	3-F3B
EF-623103	3-F4B
EF-623103	3-F5B
EI-344764	3-IC1
EI-345474	4-IC2
EI-355697	2-IC1
EI-355697	4-IC1
EJ-329610	13-2
EJ-336915	5-J3
EJ-336915	5-J4
EJ-336915	5-J5
EJ-337404	2-J1
EJ-337405	13-J901A
EJ-337406	13-TM902A
EJ-337424	2-J2
EJ-342935	11-TM902
EJ-342935	13-TM902B
EJ-448846	10-J19
EJ-352642	13-J901B
EJ-355459	5-J6
EL-355435	6-IN5
EL-355435	6-IN6
EL-355435	6-IN7
EL-355435	6-IN1 to 4
EO-332116	4-L1
EO-337684	2-L1
EO-338409	12-L1
EQ-348929	2-RL1
EQ-355431	4-RL1
EQ-355458	5-RL1
ER-306416	7-R1
ER-306416	7-R2
ER-311760	4-R9
ER-311760	4-R10
ER-316802	4-R37
ER-322591	5-R17
ER-322591	5-R18
RR-322787	4-R30
ER-322787	4-R31
ER-324184	3-R18
ER-324184	3-R21
ER-324184	3-R24
ER-324184	3-R27
ER-324184	3-R29
ER-324185	4-R33 to 36
ER-324337	5-R8
ER-325638	4-R24
ER-325638	4-R27
ER-328071	4-R32
ER-333429	4-R21
ER-333429	4-R22
ER-338183	4-R4B
ER-338183	4-R69
ER-338187	2-R47
ER-338187	2-R48
ER-341331	4-R15
ER-341331	4-R16
ER-346929	2-R1
ER-346929	3-R25
ER-346929	3-R26
ER-359508	2-R27
ER-359509	2-R28
ER-359510	2-R29
ER-359511	2-R30
ER-359512	2-R31
ER-359513	2-R32
ER-359514	2-R33
ER-359516	2-R34
ER-359520	4-R50
ER-359520	4-R52
ER-359521	4-R5
ER-359521	4-R8
ER-359521	4-R65
ER-359522	4-R38
ER-359522	4-R39
ER-359524	2-R43
ER-359524	2-R46
ER-359823	3-R19
ER-359823	3-R20
ER-359823	4-R68
ER-359824	3-R30
ER-359825	2-R5
ER-359825	2-R8
ER-359826	3-R22
ER-359826	3-R23
ER-362240	4-R4A
ER-557583	10-R1
ES-345481	6-SW4
ES-345481	6-SW6
ES-348841	6-SW3
ES-348841	6-SW5
ES-349070	13-VS901
ES-355407	13-SW901
ES-355417	6-SW1
ES-355418	6-SW2
ES-355428	4-SW1
ES-355433	7-SW1
ES-355436	4-SW2
ET-308141	5-TR1
ET-308141	5-TR2 to 4
ET-310148	3-TR9
ET-321016	4-TR1
ET-337759	3-TR1
ET-337759	3-TR2
ET-337759	3-TR5
ET-337759	3-TR6
ET-338244	4-TR12
ET-345625	2-TR3
ET-345625	3-TR3
ET-345625	3-TR7
ET-345626	2-TR4
ET-345626	3-TR4
ET-345626	3-TR8
ET-347143	2-TR6
ET-348829	2-TR10
ET-348829	4-TR6
ET-348829	4-TR9
ET-348830	4-TR4
ET-348830	4-TR5
ET-348830	4-TR10
ET-348830	4-TR11
ET-348831	2-TR9
ET-348831	4-TR7
ET-348831	4-TR8
ET-348834	2-TR7
ET-348834	4-TR3
ET-348835	2-TR8
ET-348835	4-TR2
ET-349081	6-TR1
ET-349081	6-TR2
ET-349081	6-TR3
ET-355413	13-TR902
ET-355413	13-TR903
ET-355414	13-TR904
ET-355414	13-TR905
ET-355626	2-TR5
ET-355782	13-TR901
ET-359827	3-TR10
ET-360749	2-TR1
ET-360750	2-TR2
EV-338118	2-VR1
EV-355427	9-VR1
EV-355456	3-VR1
EV-355457	3-VR2
EV-355466	3-VR3
EV-380204	4-VR1
EW-338517	13-5E
EW-346249	13-5D
EW-347897	13-5C
EW-349427	13-5B
EW-374894	13-5A
EZ-345459	13-4
EZ-631945	13-6
SA-312465	13-8
SE-358656	14-2
SK-B358655A1	14-8
SK-B358655A2	14-9
SK-B358655A3	14-10
SK-B358655A4	14-11
SK-B358655A5	14-12
SK-B358655A6	14-13
SK-B358655A7	14-4
SK-B358655B1	14-8B
SK-B358655B2	14-9B
SK-B358655B3	14-10B
SK-B358655B4	14-11B
SK-B358655B5	14-12B
SK-B358655B6	14-13B
SK-B358655B7	14-4B
SK-B345231A	14-3
SK-345231C	14-3B
SK-358649A	14-5
SK-358649B	14-5B
SK-358651A	14-6
SK-358651B	14-6B
SK-358653A	14-7
SK-358653B	14-7B
SK-358657A	14-15
SK-358657B	14-15B
SK-358658A	14-16
SK-358658B	14-16B
SP-358664E	13-1A
SP-358664F	13-1B
SP-358664G	13-1C
SP-358664H	13-1D
SP-358664K	13-1E
SP-358673A	14-17
SP-358673B	14-17B
ZS-319460	13-3
ZS-322570	14-18
ZS-322580	14-18B
ZS-325495	13-9
ZS-345436B	13-10
ZS-345624	13-7
ZS-447840	14-14x

—MEMO—

AKAI

SCHEMATIC DIAGRAM AND PC BOARDS

MODEL AM-A90

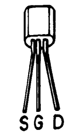
LOCATION OF COMPONENTS

TRs
TR1.....2C
TR2.....2D
TR3.....1C
TR4.....2C
TR6.....2E
TR7.....1D
TR8.....2D
TR9.....3E
TR10....3E

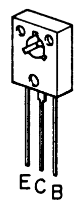
IC
IC1.....1F

CONNECTORS
W301....1E
W302....1E
W303....1E
W304....2F
W305....1F
W308....1E
W309....1E
W310....1F

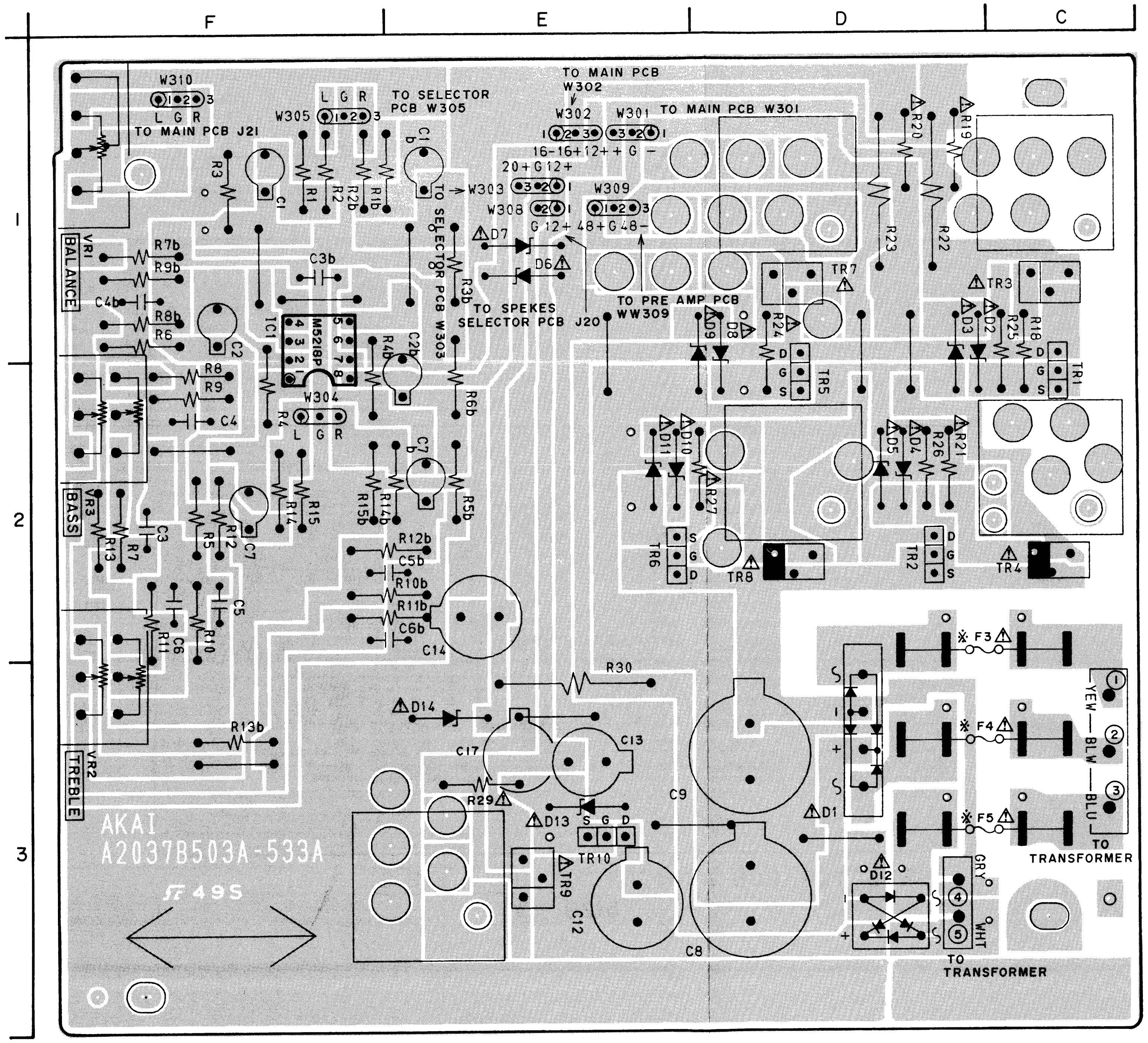
TR1,2,5,6.....2SK246(GR)
TR3,7.........2SC3116(S.T)
TR4,8.........2SA1248(S.T)
TR9...........2SD612K(E.F)
TR10..........2SK246(BL)



2SK246



2SA1248
2SC3116
2SD612K


F
E
D
C
1
2
3
W310
L G R
TO MAIN PCB J21
W305
TO SELECTOR PCB W305
TO MAIN PCB W302
W302
W301
TO MAIN PCB W301
16-16+12++G -
20+G12+
W303
W308
W309
G 12+ 48+G 48-
TO SELECTOR PCB W303
TO SPEKES SELECTOR PCB J20
TO PRE AMP PCB WW309
VR1 BALANCE
VR3 BASS
VR2 TREBLE
IC1 M5218P
W304
TR1
TR2
TR3
TR4
TR5
TR6
TR7
TR8
TR9
TR10
D1
D7
D6
D8
D9
D14
D13
D12
C8
C9
C12
C13
C14
C17
R30
R29
R13b
F3
F4
F5
YEW
BLW
BLU
GRY
WHT
TO TRANSFORMER
AKAI
A2037B503A-533A

TONE CONTROL/POWER SUPPLY PCB A2037B523A U.E.B.S
513A C.A
533A V

※	C.A	U.E.V.S	B
F3	1.25A 125V	T1A 250V	T1A 250V
F4	1.25A 125V	T1A 250V	T1A 250V
F5	1A 125V	T1A 250V	T1A 250V

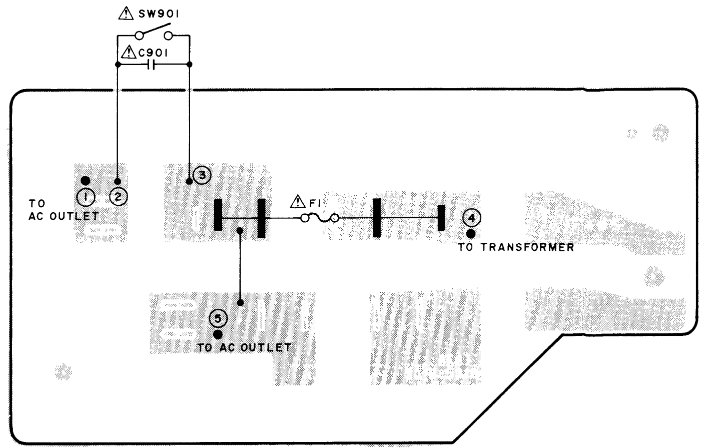
B
●●● = NPN TRANSISTOR

B
■●● = PNP TRANSISTOR

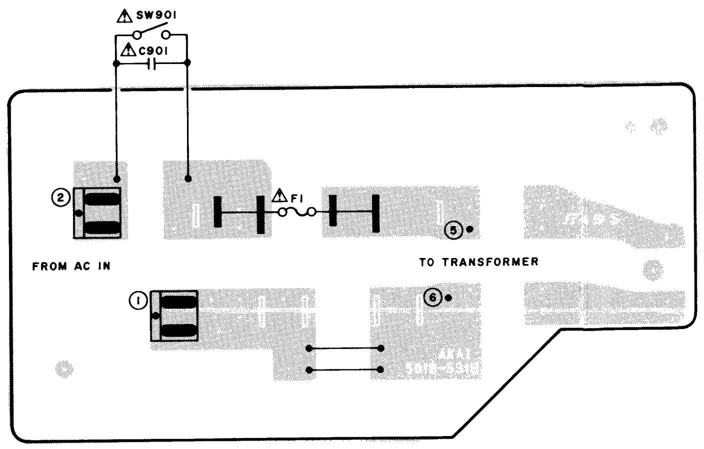
●●● = FILED EFFECT TRANSISTOR

WARNING: ⚠INDICATES SAFETY CRITICAL COMPONENTS FOR CONTINUED SAFETY, REPLACE SAFETY CRITICAL COMPONENTS ONLY WITH MANUFACTURER'S RECOMMENDED PARTS

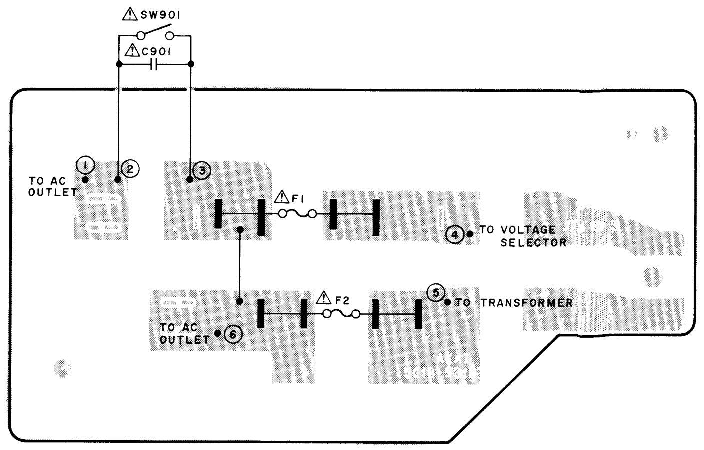
AVERTISSEMENT: ⚠IL INDIQUE LES COMPOSANTS CRITIQUES DE SÉCURITÉ. POUR MAINTENIR LE DEGRÉ DE SÉCURITÉ DE L'APPAREIL, NE REMPLACER QUE DES PIÈCES RECOMMANDEES PAR LE FABRICANT


SW901
C901
TO AC OUTLET
F1
TO TRANSFORMER
TO AC OUTLET

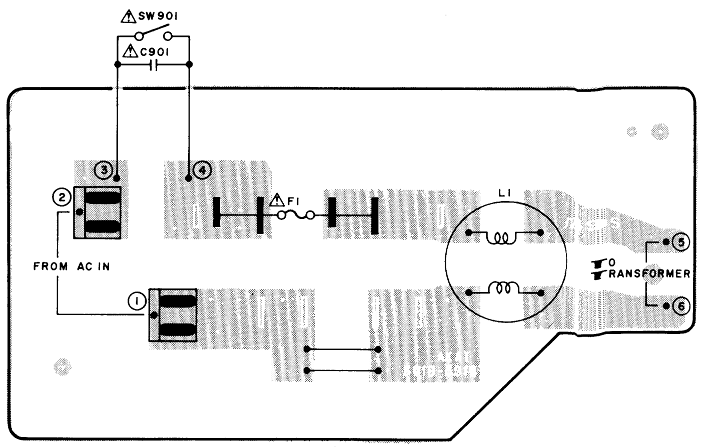
FUSE PCB A2037A511B C,A


SW901
C901
F1
FROM AC IN
TO TRANSFORMER

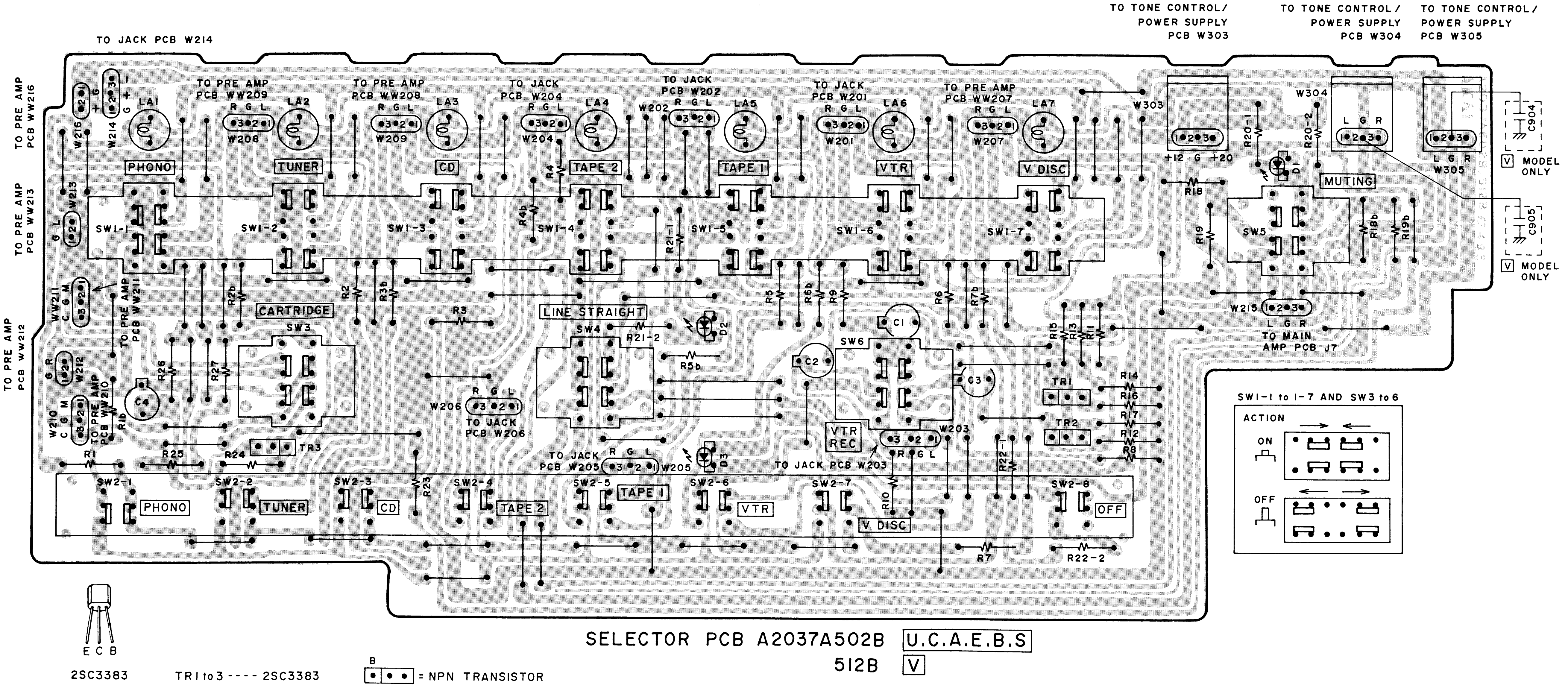
FUSE PCB A2037A521B E,B,S


SW901
C901
TO AC OUTLET
F1
TO VOLTAGE SELECTOR
TO AC OUTLET
F2
TO TRANSFORMER

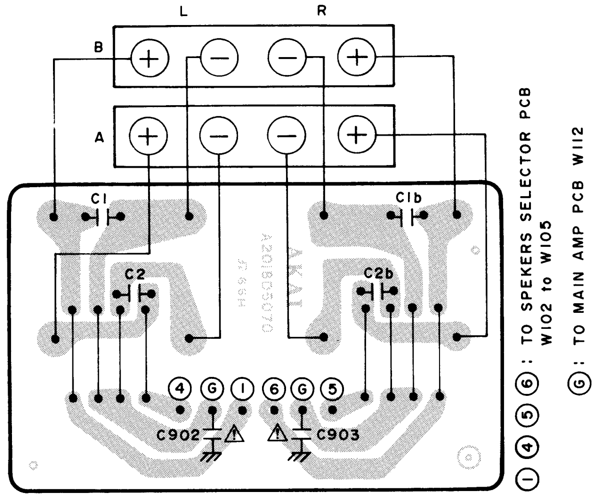
FUSE PCB A2037A501B U


SW901
C901
F1
L1
FROM AC IN
TO TRANSFORMER

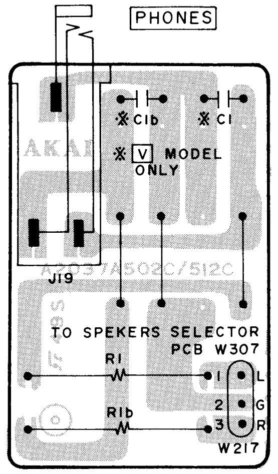
FUSE PCB A2037A531B V


TO JACK PCB W214
TO PRE AMP PCB WW216
TO PRE AMP PCB WW213
TO PRE AMP PCB WW212
TO PRE AMP PCB WW211
TO PRE AMP PCB WW210
W216
W214
W213
W212
W211
W210
G +
G −
C G M
G L
G R
TO PRE AMP PCB WW209
TO PRE AMP PCB WW208
TO JACK PCB W204
TO JACK PCB W202
TO JACK PCB W201
TO PRE AMP PCB WW207
R G L
W208
W209
W204
W202
W201
W207
LA1
LA2
LA3
LA4
LA5
LA6
LA7
PHONO
TUNER
CD
TAPE 2
TAPE 1
VTR
V DISC
MUTING
SW1-1
SW1-2
SW1-3
SW1-4
SW1-5
SW1-6
SW1-7
SW3
SW4
SW5
SW6
CARTRIDGE
LINE STRAIGHT
VTR REC
TO TONE CONTROL/ POWER SUPPLY PCB W303
TO TONE CONTROL/ POWER SUPPLY PCB W304
TO TONE CONTROL/ POWER SUPPLY PCB W305
W303
W304
W305
+12 G +20
L G R
C904
C905
V MODEL ONLY
V MODEL ONLY
W215
L G R
TO MAIN AMP PCB J7
D1
D2
D3
C1
C2
C3
C4
R1
R1b
R2
R2b
R3
R3b
R4
R4b
R5
R5b
R6
R6b
R7
R7b
R8
R9
R10
R11
R12
R13
R14
R15
R16
R17
R18
R18b
R19
R19b
R20-1
R20-2
R21-1
R21-2
R22-1
R22-2
R23
R24
R25
R26
R27
TR1
TR2
TR3
W206
TO JACK PCB W206
TO JACK PCB W205
W205
TO JACK PCB W203
W203
SW2-1
SW2-2
SW2-3
SW2-4
SW2-5
SW2-6
SW2-7
SW2-8
PHONO
TUNER
CD
TAPE 2
TAPE 1
VTR
V DISC
OFF
SW1-1 to 1-7 AND SW3 to 6
ACTION
ON
OFF
E C B
2SC3383
TR1 to 3 ---- 2SC3383
B
= NPN TRANSISTOR

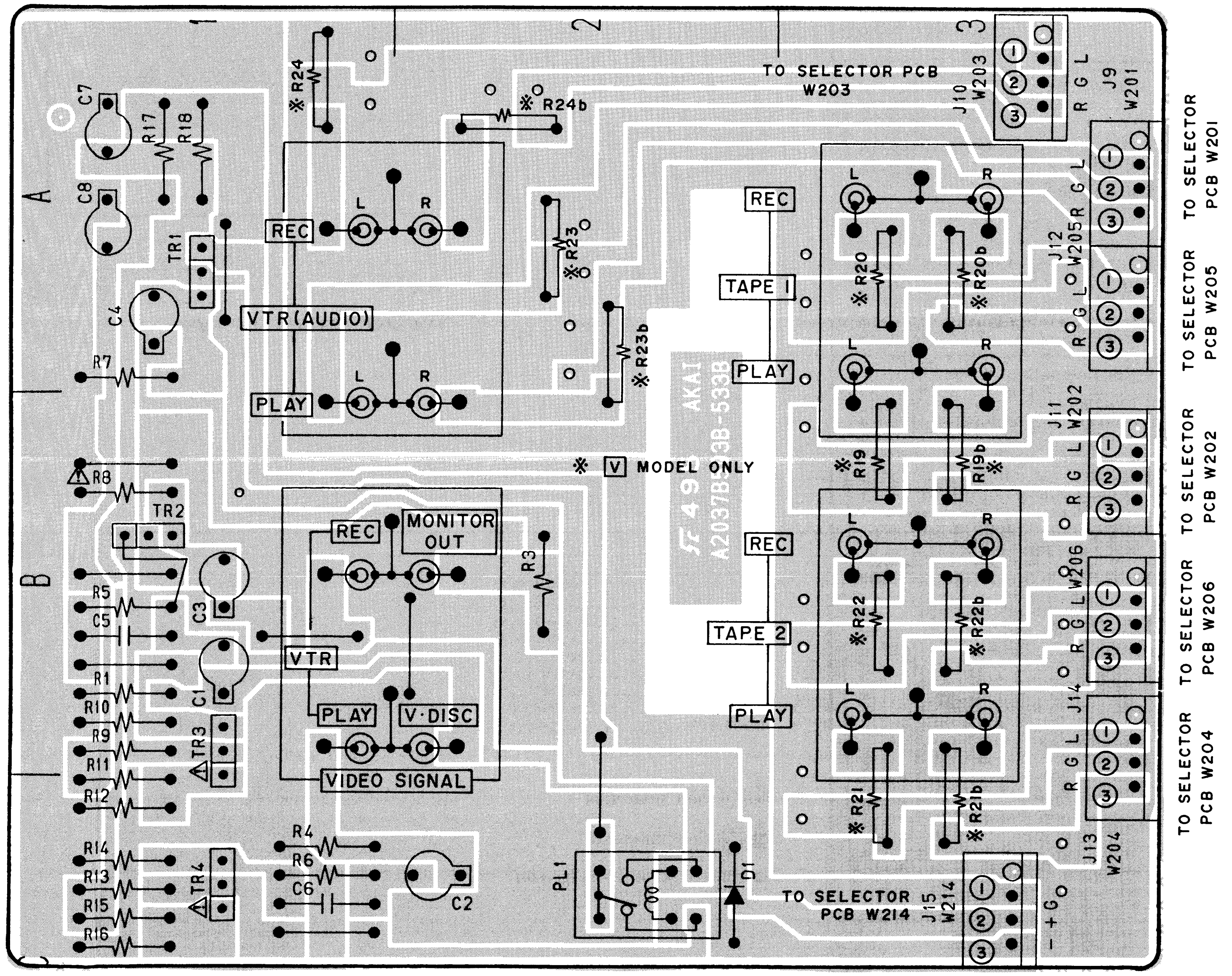
SELECTOR PCB A2037A502B U.C.A.E.B.S
512B V


L
R
B
A
C1
C1b
C2
C2b
C902
C903
AKAI
① ④ ⑤ ⑥ : TO SPEAKERS SELECTOR PCB W102 to W105
Ⓖ : TO MAIN AMP PCB W112

SPEAKERS TERMINAL PCB
A2018D5070 [V] MODEL ONLY

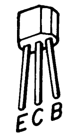

PHONES
※C1b
※C1
※[V] MODEL ONLY
AKAI
J19
A2037A502C/512C
TO SPEKERS SELECTOR PCB W307
R1
R1b
W217

PHONES PCB
A2037A502C [U.C.A.E.B.S]
A2037A512C [V]


TO SELECTOR PCB W203
TO SELECTOR PCB W201
TO SELECTOR PCB W205
TO SELECTOR PCB W202
TO SELECTOR PCB W206
TO SELECTOR PCB W204
TO SELECTOR PCB W214
REC
PLAY
VTR(AUDIO)
TAPE 1
TAPE 2
MONITOR OUT
VTR
V·DISC
VIDEO SIGNAL
※ [V] MODEL ONLY
AKAI
A2037B523B-533B
TR1
TR2
TR3
TR4
PL1
D1
C1
C2
C3
C4
C5
C6
C7
C8
R1
R3
R4
R5
R6
R7
R8
R9
R10
R11
R12
R13
R14
R15
R16
R17
R18
R19
R19b
R20
R20b
R21
R21b
R22
R22b
R23
R23b
R24
R24b
J9
J10
J11
J12
J13
J14
J15
A
B

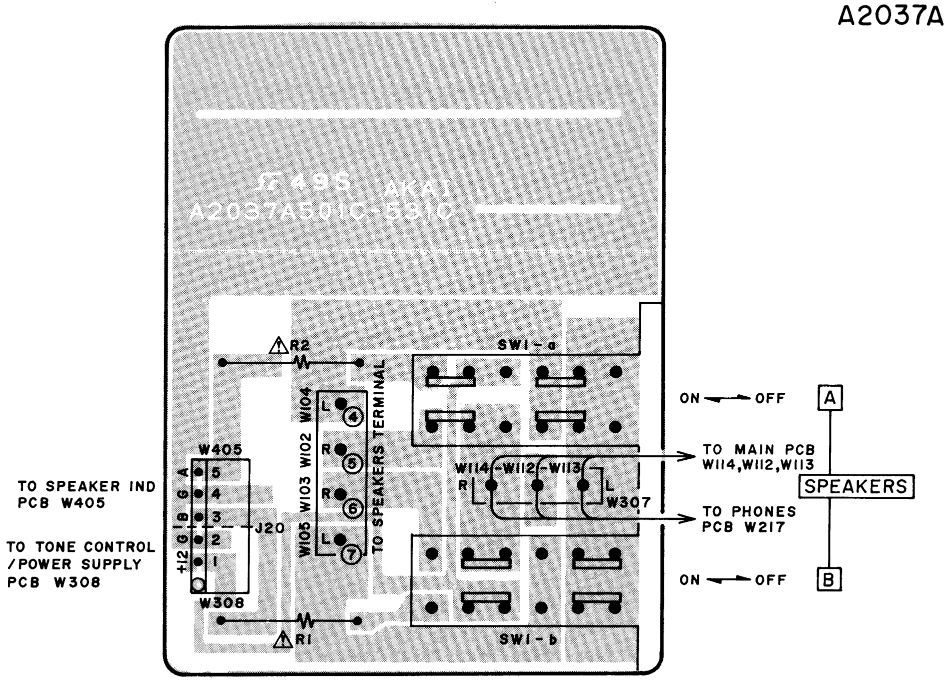
[• • •] = NPN TRANSISTOR
B

TR,S
TRI to 4----2SC603(E.F)

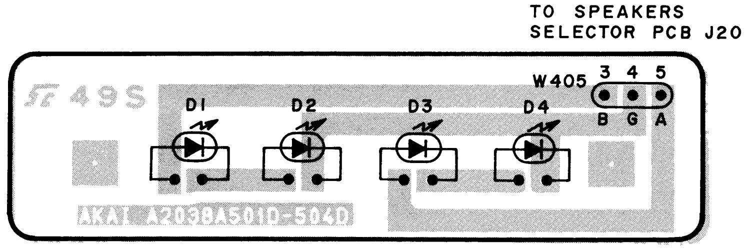


2SC603

JACK PCB A2037B523B [U.E.B.S]
513B [C.A]
533B [V]


49S AKAI
A2037A501C-531C
R2
R1
SW1-a
SW1-b
W405
W308
J20
W104
W102
W103
W105
TO SPEAKERS TERMINAL
W114-W112-W113
W307
TO SPEAKER IND PCB W405
TO TONE CONTROL /POWER SUPPLY PCB W308
ON → OFF
A
B
TO MAIN PCB W114,W112,W113
TO PHONES PCB W217
SPEAKERS

SPEAKERS SELECTOR PCB
A2037A501C [U]
511C [C,A]
521C [E,B,S]
531C [V]


TO SPEAKERS SELECTOR PCB J20
W405
3 4 5
B G A
49S
D1
D2
D3
D4
AKAI A2038A501D-504D

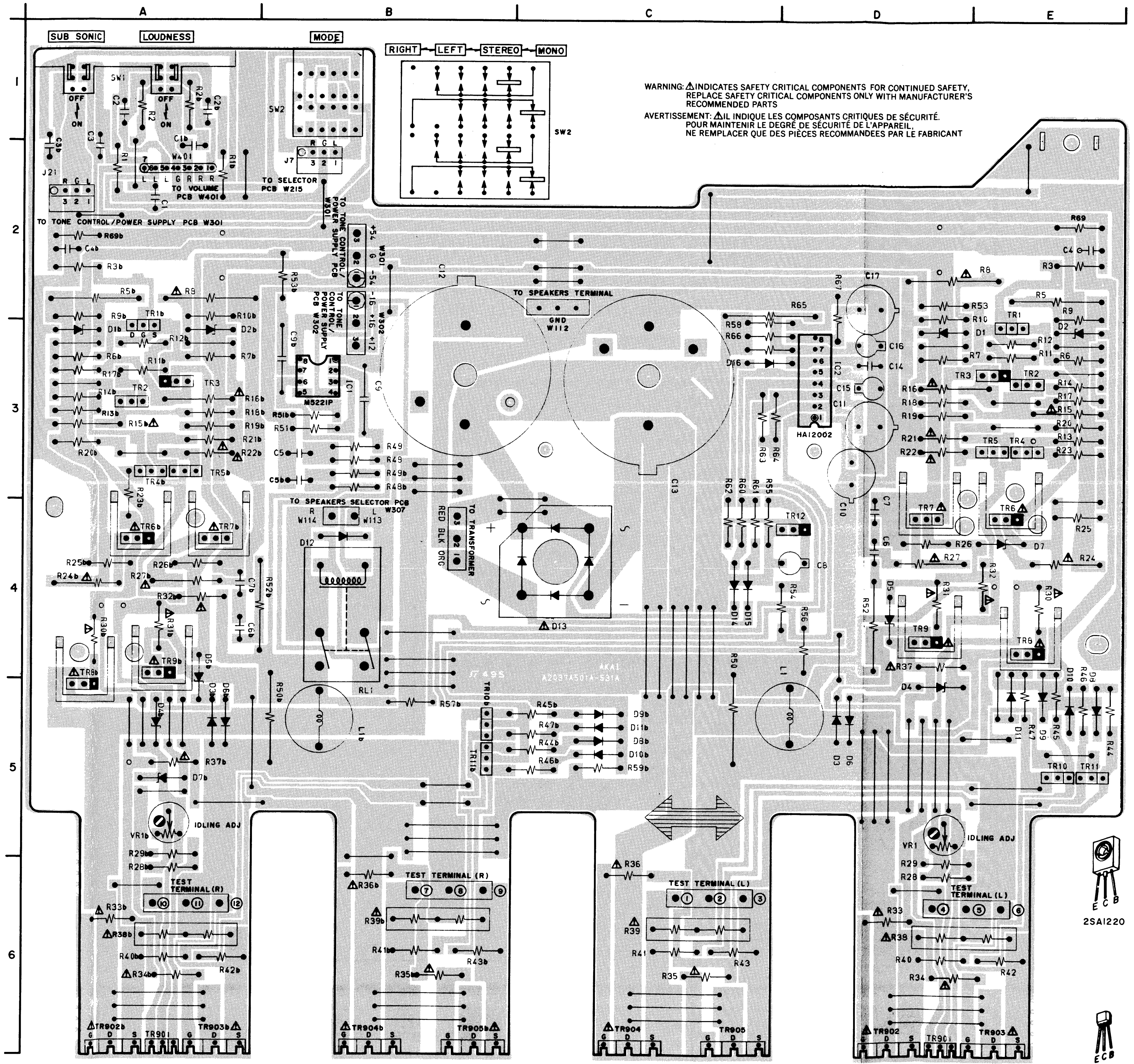
SPEAKERS IND PCB A2037A501D [U]
511D [C,A]
521D [E,B,S]
531D [V]

WARNING: ⚠INDICATES SAFETY CRITICAL COMPONENTS FOR CONTINUED SAFETY, REPLACE SAFETY CRITICAL COMPONENTS ONLY WITH MANUFACTURER'S RECOMMENDED PARTS

AVERTISSEMENT: ⚠IL INDIQUE LES COMPOSANTS CRITIQUES DE SÉCURITÉ. POUR MAINTENIR LE DEGRÉ DE SÉCURITÉ DE L'APPAREIL, NE REMPLACER QUE DES PIÈCES RECOMMANDÉES PAR LE FABRICANT

WARNING: ⚠INDICATES SAFETY CRITICAL COMPONENTS FOR CONTINUED SAFETY,
REPLACE SAFETY CRITICAL COMPONENTS ONLY WITH MANUFACTURER'S
RECOMMENDED PARTS

AVERTISSEMENT: ⚠IL INDIQUE LES COMPOSANTS CRITIQUES DE SÉCURITÉ.
POUR MAINTENIR LE DEGRÉ DE SÉCURITÉ DE L'APPAREIL,
NE REMPLACER QUE DES PIÈCES RECOMMANDEES PAR LE FABRICANT

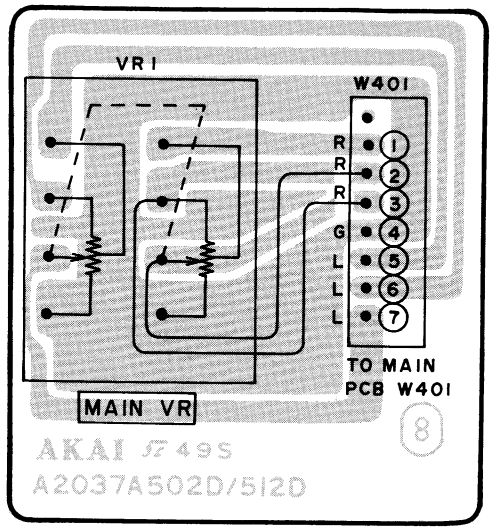

A
B
C
D
E
1
2
3
4
5
6
SUB SONIC
LOUDNESS
MODE
RIGHT
LEFT
STEREO
MONO
SW1
SW2
OFF
ON
J21
J7
W401
TO VOLUME PCB W401
TO SELECTOR PCB W215
TO TONE CONTROL/POWER SUPPLY PCB W301
TO TONE CONTROL/POWER SUPPLY PCB W301
TO TONE CONTROL/POWER SUPPLY PCB W302
TO SPEAKERS TERMINAL
GND W112
TO SPEAKERS SELECTOR PCB W307
W114
W113
TO TRANSFORMER
RED BLK ORG
M5221P
IC1
IC2
HA12002
C12
C13
D13
RL1
L1
L1b
AKAI A2037A501A-531A
IDLING ADJ
VR1
VR1b
TEST TERMINAL (R)
TEST TERMINAL (L)
TR901
TR902
TR903
TR904
TR905
TR901b
TR902b
TR903b
TR904b
TR905b
G D S

MAIN AMP PCB A2037A501A U

511A C,A

521A E,B,S

531A V


VR1
W401
R
R
R
G
L
L
L
①
②
③
④
⑤
⑥
⑦
MAIN VR
TO MAIN PCB W401
AKAI ∫⁷495
A2037A502D/512D
⑧

VOLUME PCB

A2037A502D U.C.A.B.E.S

A2037A521D V

LOCATION OF COMPONENTS

ICs

IC1	3B
IC2	3D

TRs

TR1 to 5	3E
TR1b to 5b	3A
TR6,7,9	4E
TR6b,7b,9b,	4A
TR8,10,11	5E
TR8b	5A
TR10b,11b	5B
TR12	4D
TR901	6E
TR901b,902b,903b,...	6A
TR902,905	6D
TR903	6E
TR904	6C
TR904b,905b	6B

CONNECTORS

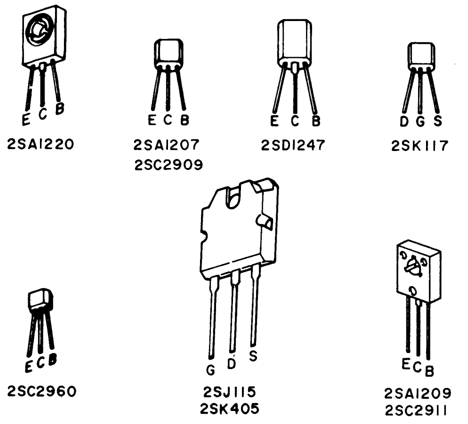
W111,113,114	4B
W112	2C
W301	2B
W302	3B
W401,J21	2A
J7	2B

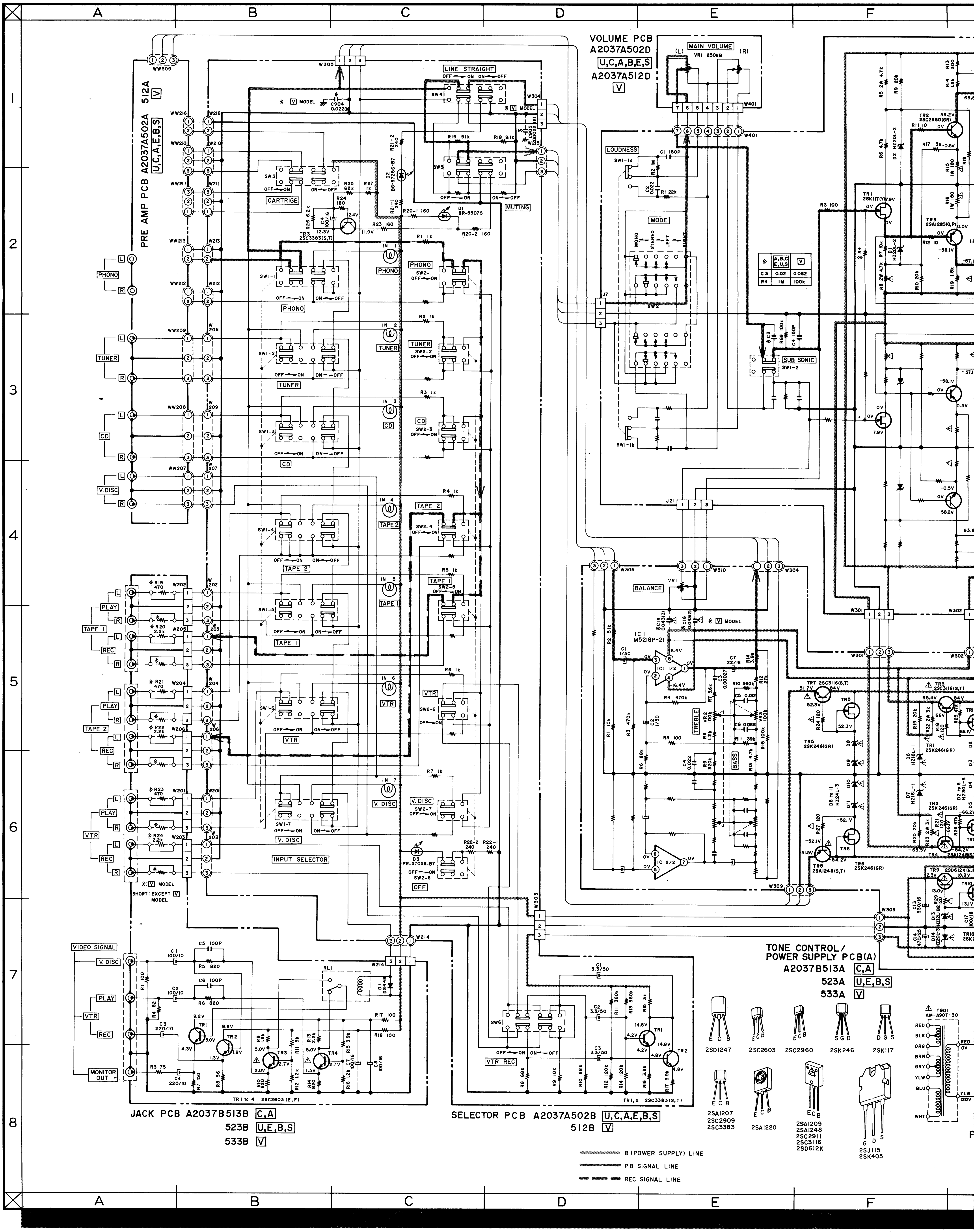
TR1	2SK117(Y)
TR2	2SC2960(GR)
TR3	2SA1220(Q,P)
TR4,5,10,11	2SC2909(S,T)
TR6,9	2SA1209(S,T)
TR7,8	2SC2911(S,T)
TR12	2SA1207(S,T)
TR901	2SD1247(T,U)
TR902,903	2SK405(O,Y)
TR904,905	2SJ115(O,Y)

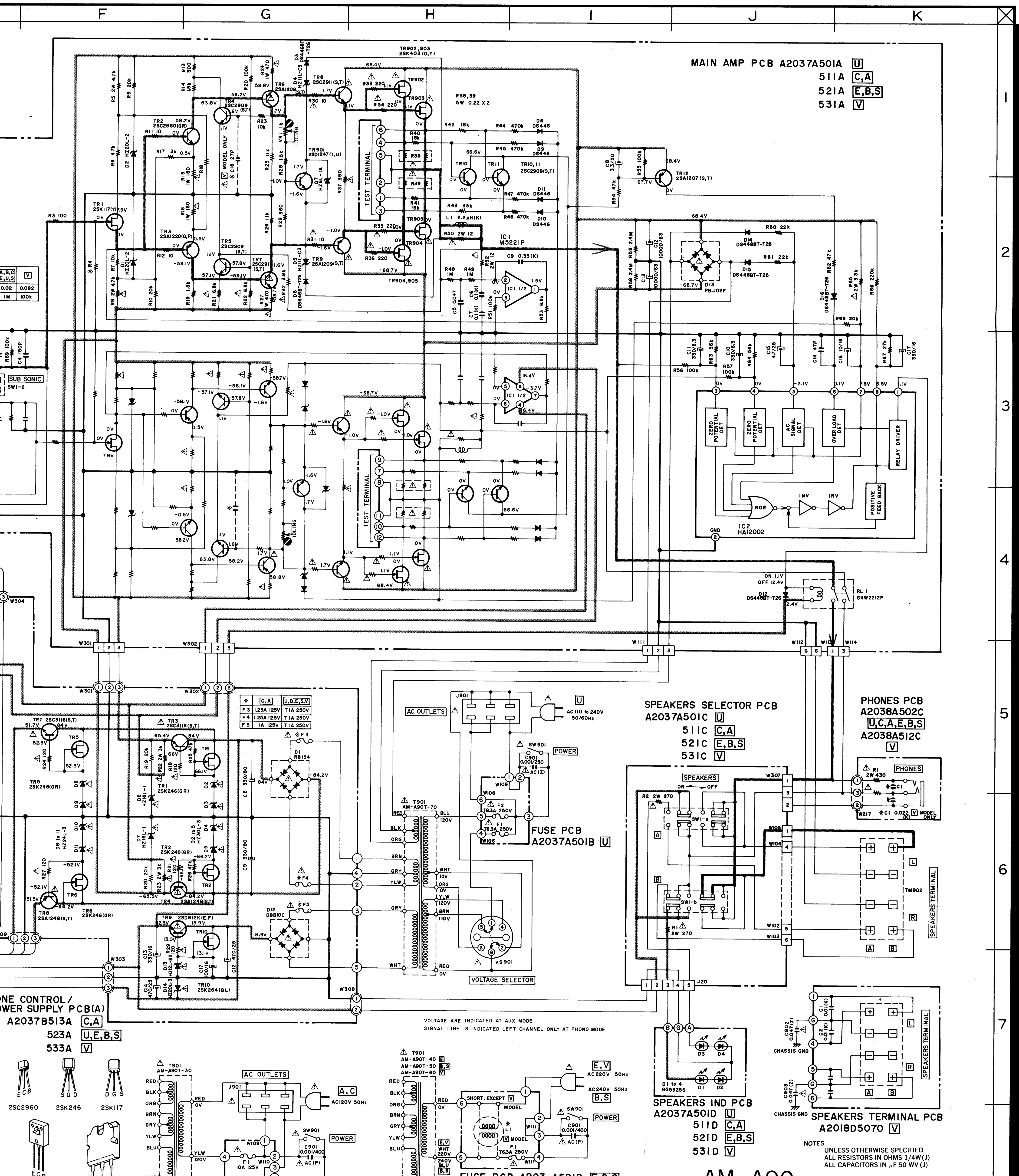
B [●|●|●] = NPN TRANSISTOR

B [■|●|●] = PNP TRANSISTOR

[●|●|●] = FILED EFFECT TRANSISTOR


E C B
2SA1220
E C B
2SA1207
2SC2909
E C B
2SD1247
D G S
2SK117
E C B
2SC2960
G D S
2SJ115
2SK405
E C B
2SA1209
2SC2911


A
B
C
D
E
F
1
2
3
4
5
6
7
8
PRE AMP PCB A2037A502A 512A
U,C,A,E,B,S
V
PHONO
TUNER
CD
V.DISC
TAPE 1
TAPE 2
VTR
PLAY
REC
CARTRIGE
LINE STRAIGHT
MUTING
INPUT SELECTOR
*: V MODEL
SHORT : EXCEPT V MODEL
VOLUME PCB A2037A502D
U,C,A,B,E,S
A2037A512D
MAIN VOLUME
VR1 250kB
LOUDNESS
MODE
MONO
STEREO
LEFT
RIGHT
SUB SONIC
BALANCE
TREBLE
BASS
IC1 M5218P-21
VIDEO SIGNAL
MONITOR OUT
VTR REC
OFF
JACK PCB A2037B513B C,A
523B U,E,B,S
533B V
SELECTOR PCB A2037A502B U,C,A,E,B,S
512B V
TONE CONTROL/ POWER SUPPLY PCB(A)
A2037B513A C,A
523A U,E,B,S
533A V
2SD1247
2SC2603
2SC2960
2SK246
2SK117
2SA1207
2SC2909
2SC3383
2SA1220
2SA1209
2SA1248
2SC2911
2SC3116
2SD612K
2SJ115
2SK405
T901 AM-A90T-30
RED
BLK
ORG
BRN
GRY
YLW
BLU
WHT
B (POWER SUPPLY) LINE
PB SIGNAL LINE
REC SIGNAL LINE
TR1 to 4 2SC2603 (E,F)
TR1,2 2SC3383(S,T)



F
G
H
I
J
K
1
2
3
4
5
6
7
8
MAIN AMP PCB A2037A501A U
511A C,A
521A E,B,S
531A V
TEST TERMINAL
IC1 M5221P
IC2 HA12002
ZERO POTENTIAL DET
AC SIGNAL DET
OVER LOAD DET
RELAY DRIVER
POSITIVE FEED BACK
NOR
INV
RL1 64W2212P
TR902,903 2SK405(O,Y)
TR904,905
SUB SONIC SW1-2
ONE CONTROL/
OWER SUPPLY PCB(A)
A2037B513A C,A
523A U,E,B,S
533A V
AC OUTLETS
J901
AC110 to 240V 50/60Hz
SW901
POWER
T901 AM-A90T-70
FUSE PCB A2037A501B U
VOLTAGE SELECTOR
VS901
SPEAKERS SELECTOR PCB
A2037A501C U
511C C,A
521C E,B,S
531C V
SPEAKERS
SW1-a
SW1-b
PHONES PCB
A2038A502C
U,C,A,E,B,S
A2038A512C
V
PHONES
TM902
SPEAKERS TERMINAL
SPEAKERS IND PCB
A2037A501D U
511D C,A
521D E,B,S
531D V
D1 to 4 BG5525S
SPEAKERS TERMINAL PCB
A2018D5070 V
CHASSIS GND
T901 AM-A90T-30
AC120V 50Hz
FUSE PCB A2038A511B C,A
T901 AM-A90T-40 E
AM-A90T-50 B,S
AM-A90T-60 V
AC220V 50Hz
AC240V 50Hz
E,V
B,S
FUSE PCB A203 A521B E,B,S
531B V
2SC2960
2SK246
2SK117
2SA1209
2SA1248
2SC2911
2SC3116
2SD612K
2SJ115
2SK405

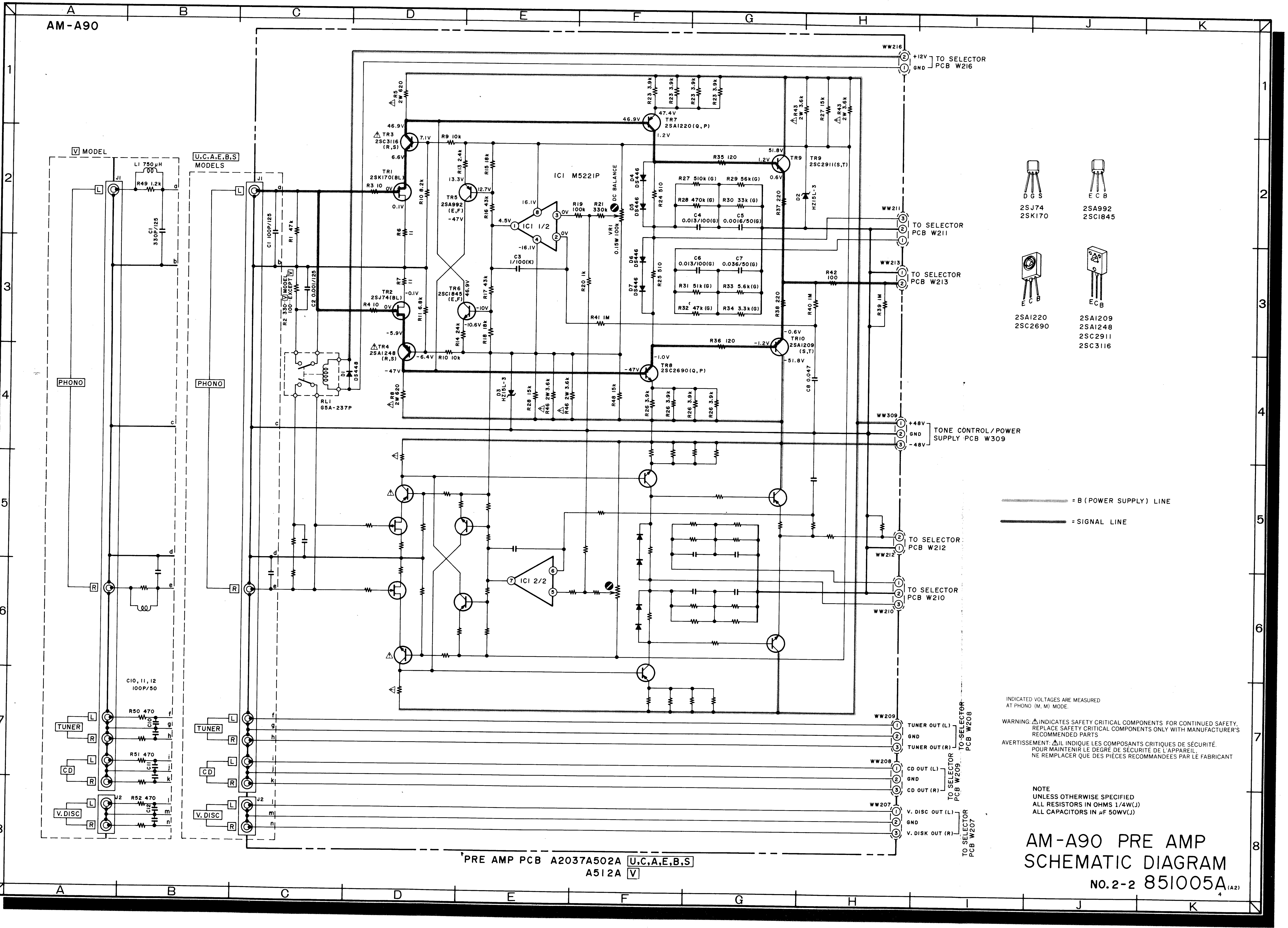
VOLTAGE ARE INDICATED AT AUX MODE
SIGNAL LINE IS INDICATED LEFT CHANNEL ONLY AT PHONO MODE

NOTES
UNLESS OTHERWISE SPECIFIED
ALL RESISTORS IN OHMS 1/4W(J)
ALL CAPACITORS IN μF 50 WV (J)

AM-A90
CONNECTION DIAGRAM
NO.2-1 851004B

WARNING: ⚠INDICATES SAFETY CRITICAL COMPONENTS FOR CONTINUED SAFETY. REPLACE SAFETY CRITICAL COMPONENTS ONLY WITH MANUFACTURER'S RECOMMENDED PARTS

AVERTISSEMENT: ⚠IL INDIQUE LES COMPOSANTS CRITIQUES DE SÉCURITÉ. POUR MAINTENIR LE DEGRÉ DE SÉCURITÉ DE L'APPAREIL, NE REMPLACER QUE DES PIÈCES RECOMMANDÉES PAR LE FABRICANT


AM-A90
V MODEL
U.C.A.E.B.S MODELS
L1 750μH
R49 1.2k
C1 330P/125
J1
PHONO
TUNER
CD
V. DISC
J2
C10, 11, 12 100P/50
R50 470
R51 470
R52 470
C1 100P/125
R1 47k
R2 330 (V MODEL) 100 (EXCEPT V)
C2 0.001/125
RL1 G5A-237P
D1 DS448
TR1 2SK170(BL)
TR2 2SJ74(BL)
TR3 2SC3116 (R,S)
TR4 2SA1248 (R,S)
R3 10
R4 10
R5 2W 620
R8 2W 620
R6 11
R7 11
R9 10k
R10 10k
R10 8.2k
R11 6.8k
R13 2.4k
R14 24k
R15 18k
R16 43k
R17 43k
R18 18k
TR5 2SA992 (E,F)
TR6 2SC1845 (E,F)
IC1 M5221P
IC1 1/2
IC1 2/2
C3 1/100(K)
R19 100k
R20 1k
R21 330k
VR1 0.15W 100k
DC BALANCE
R41 1M
D3 HZ15L-3
R28 15k
R46 2W 3.6k
R48 15k
TR7 2SA1220(Q,P)
TR8 2SC2690(Q,P)
R23 3.9k
R26 3.9k
R24 510
R25 510
D4 DS446
D5 DS446
D6 DS446
D7 DS446
R27 510k (G)
R29 56k (G)
R28 470k (G)
R30 33k (G)
C4 0.013/100(G)
C5 0.0016/50(G)
C6 0.013/100(G)
C7 0.036/50(G)
R31 51k (G)
R33 5.6k (G)
R32 47k (G)
R34 3.3k (G)
R35 120
R36 120
R37 220
R38 220
TR9 2SC2911(S,T)
TR10 2SA1209 (S,T)
D2 HZ15L-3
R43 2W 3.6k
R27 15k
R40 1M
R39 1M
R42 100
C8 0.047
46.9V
7.1V
6.6V
0V
0.1V
13.3V
12.7V
-47V
16.1V
4.5V
-16.1V
-0.1V
-5.9V
-6.4V
-10V
-10.6V
47.4V
1.2V
51.8V
0.6V
-1.0V
-1.2V
-0.6V
-51.8V
WW216
+12V
GND
TO SELECTOR PCB W216
WW211
TO SELECTOR PCB W211
WW213
TO SELECTOR PCB W213
WW309
+48V
GND
-48V
TONE CONTROL/POWER SUPPLY PCB W309
WW212
TO SELECTOR PCB W212
WW210
TO SELECTOR PCB W210
WW209
TUNER OUT (L)
GND
TUNER OUT (R)
TO SELECTOR PCB W208
WW208
CD OUT (L)
GND
CD OUT (R)
TO SELECTOR PCB W209
WW207
V. DISC OUT (L)
GND
V. DISC OUT (R)
TO SELECTOR PCB W207
D G S
2SJ74
2SK170
E C B
2SA992
2SC1845
E C B
2SA1220
2SC2690
E C B
2SA1209
2SA1248
2SC2911
2SC3116
= B (POWER SUPPLY) LINE
= SIGNAL LINE
A B C D E F G H I J K
1 2 3 4 5 6 7 8

PRE AMP PCB A2037A502A U,C,A,E,B,S
A512A V

INDICATED VOLTAGES ARE MEASURED
AT PHONO (M, M) MODE.

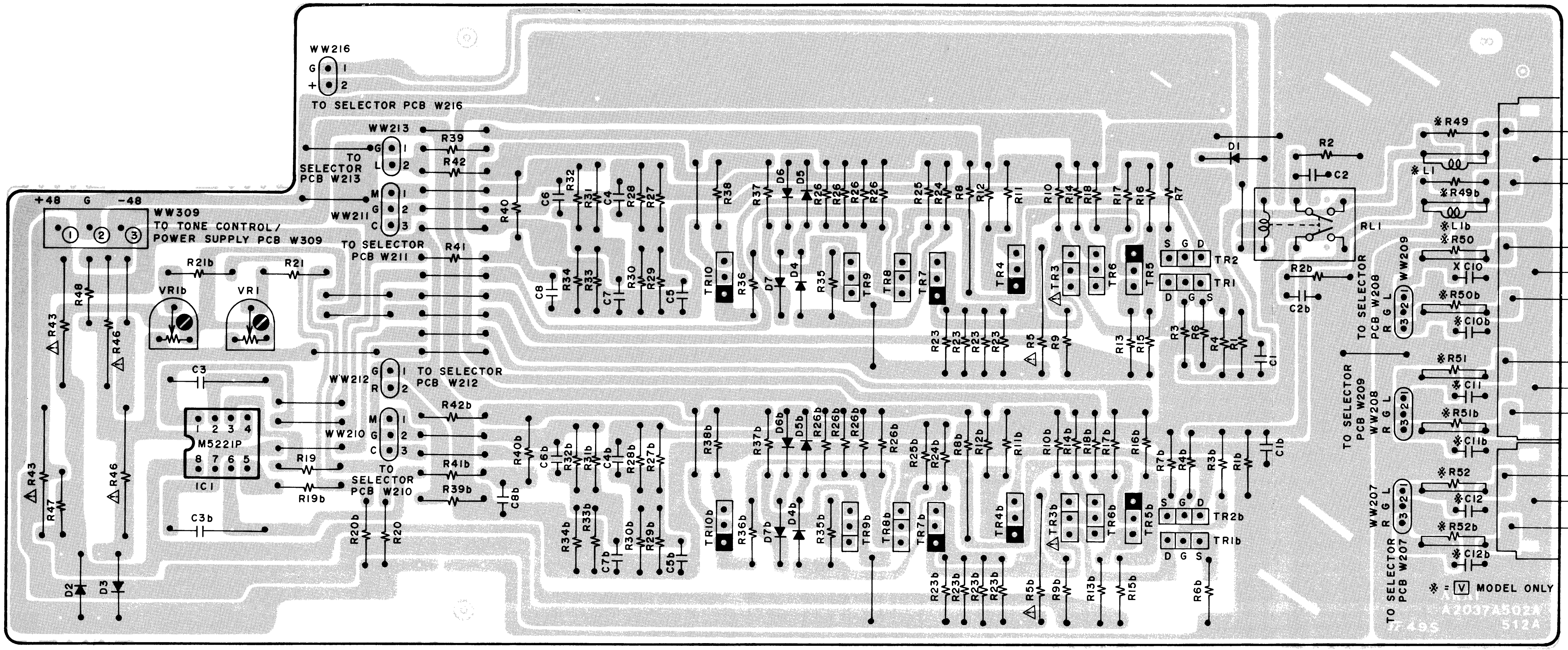
WARNING: ⚠ INDICATES SAFETY CRITICAL COMPONENTS FOR CONTINUED SAFETY. REPLACE SAFETY CRITICAL COMPONENTS ONLY WITH MANUFACTURER'S RECOMMENDED PARTS

AVERTISSEMENT: ⚠ IL INDIQUE LES COMPOSANTS CRITIQUES DE SÉCURITÉ. POUR MAINTENIR LE DEGRÉ DE SÉCURITÉ DE L'APPAREIL, NE REMPLACER QUE DES PIÈCES RECOMMANDÉES PAR LE FABRICANT

NOTE
UNLESS OTHERWISE SPECIFIED
ALL RESISTORS IN OHMS 1/4W(J)
ALL CAPACITORS IN μF 50WV(J)

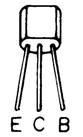
AM-A90 PRE AMP SCHEMATIC DIAGRAM

NO. 2-2 851005A(A2)

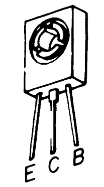

WW216
G 1
+ 2
TO SELECTOR PCB W216
WW213
TO SELECTOR PCB W213
G 1
L 2
WW211
M 1
G 2
C 3
TO SELECTOR PCB W211
WW212
G 1
R 2
TO SELECTOR PCB W212
WW210
M 1
G 2
C 3
TO SELECTOR PCB W210
+48 G -48
WW309
TO TONE CONTROL/ POWER SUPPLY PCB W309
① ② ③
R39
R42
R41
R40
R42b
R41b
R39b
R40b
R21b
R21
VR1b
VR1
R48
R43
R46
R47
C3
C3b
M5221P
1 2 3 4
8 7 6 5
IC1
R19
R19b
R20b
R20
D2
D3
C6
R32
R31
C4
R28
R27
C8
R34
R33
C7
R30
R29
C5
C6b
R32b
R31b
C4b
R28b
R27b
C8b
R34b
R33b
C7b
R30b
R29b
C5b
R38
R37
D6
D5
R26
R25
R24
R8
R12
R11
R10
R14
R18
R17
R16
R7
TR10
R36
D7
D4
R35
TR9
TR8
TR7
TR4
TR3
TR6
TR5
S G D
TR2
TR1
D G S
R23
R5
R9
R13
R15
R3
R6
R4
R1
C1
R38b
R37b
D6b
D5b
R26b
R25b
R24b
R8b
R12b
R11b
R10b
R14b
R18b
R17b
R16b
R7b
R4b
R3b
R1b
C1b
TR10b
R36b
D7b
D4b
R35b
TR9b
TR8b
TR7b
TR4b
TR3b
TR6b
TR5b
TR2b
TR1b
R23b
R5b
R9b
R13b
R15b
R6b
D1
R2
C2
RL1
R2b
C2b
TO SELECTOR PCB W208
WW209
R G L
③②①
TO SELECTOR PCB W209
WW208
TO SELECTOR PCB W207
WW207
※R49
※L1
※R49b
※L1b
※R50
※C10
※R50b
※C10b
※R51
※C11
※R51b
※C11b
※R52
※C12
※R52b
※C12b
L CH
R CH
PHONO
TUNER
CD
V·DISC
※ = V MODEL ONLY
A2037A502A
512A

PRE AMP PCB A2037A502A [U.C.A.E.B.S]

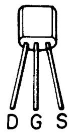
512A [V]



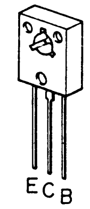
2SA992
2SC1845



2SA1220
2SC2690



2SK170
2SJ74



2SC3116
2SA1248
2SC2911
2SA1209

●●● = FILED EFFECT TRANSISTOR

B
●●● = NPN TRANSISTOR

B
■●● = PNP TRANSISTOR

TR1,1b	2SK170(BL)
TR2,2b	2SJ74(BL)
TR3,3b	2SC3116(R,S)
TR4,4b	2SA1248(R,S)
TR5,5b	2SA992(E,F)
TR6,6b	2SC1845(E,F)
TR7,7b	2SA1220(Q,P)
TR8,8b	2SC2690(Q,P)
TR9,9b	2SC2911(S,T)
TR10,10b	2SA1209(S,T)

WARNING: ⚠INDICATES SAFETY CRITICAL COMPONENTS FOR CONTINUED SAFETY.
REPLACE SAFETY CRITICAL COMPONENTS ONLY WITH MANUFACTURER'S
RECOMMENDED PARTS

AVERTISSEMENT: ⚠IL INDIQUE LES COMPOSANTS CRITIQUES DE SECURITE.
POUR MAINTENIR LE DEGRE DE SECURITE DE L'APPAREIL.
NE REMPLACER QUE DES PIECES RECOMMANDEES PAR LE FABRICANT